A A E 1 Cooperative Education/Co-op in Agricultural & Applied Economics Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in A A E 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

A A E 215 Introduction to Agricultural and Applied Economics Credits: 3
Introduction to economic ways of thinking about a wide range of problems and issues. Topics include consumption, production, prices, markets, finance, trade, pollution, growth, farms, taxes, and development. Prereq: Math 112 or equiv.
General Education: QR-B L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

A A E 244 The Environment and the Global Economy Credits: 3
The "economic way of thinking" about global and regional environmental issues. Topics include climate change, biodiversity preservation, ocean fisheries, environmental impacts of international trade, poverty and the environment, and sustainability. Prereq: Open to Freshmen L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

A A E 246 Climate Change Economics and Policy Credits: 3
Climate change and the role of applied economics in related policy analysis and research. Economics of mitigation, adaptation and geo-engineering; integrated assessment; environmental implications of energy use; climate change impacts on land use. Use of economic analysis and modeling for public policy design. Prereq: None L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

A A E 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & So or Jr st. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

A A E 299 Independent Study Credits: 1 - 3
Prereq: Freshmen, Sophomore or Junior standing & written consent of instructor. Open to Freshmen
Typically Offered: Fall, Spring, Summer

A A E 306 The Real Estate Process Credits: 3
Introductory survey course. Decision-making processes for the manufacture, marketing, management and financing of real estate space. Survey of institutional context, economics of urbanization, historical pattern and structure of city growth, and public policy issues regarding urban environment and business management. Prereq: So, Jr, or Sr st: Econ 101 L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

A A E 319 The International Agricultural Economy Credits: 3
The nature of trade in agricultural products, trade policies and practices of importing and exporting nations, agricultural policies of major trading blocks, market instability and other primary commodity problems, recent history and current developments in multilateral trade policy. Prereq: AAE 215 or Econ 101 or consent of instructor
Typically Offered: Fall
A A E 320 Farming Systems Management Credits: 3
Methods of economic analysis, planning and management applied to conventional and alternative farming systems. Prereq: AAE 215 or Econ 101
Typically Offered: Fall

A A E 322 Commodity Markets Credits: 3
Principles and practices in marketing systems for U.S. agricultural commodities. Vertical organization; forward contracts, future markets, agricultural options and price formation. Alternate management at the farm, processor, wholesale and retail levels. Prereq: AAE 215 or Econ 101 or equivalent
Typically Offered: Spring

A A E 323 Cooperatives Credits: 3
Cooperatives: Analysis of basic principles, structure and organization, legal bases, finance, history and role in U.S. economy. Different types and uses as tools in the U.S. and developing countries. Prereq: Junior standing or consent of instructor
Typically Offered: Fall

A A E 340 Issues in Food Systems Credits: 3 - 4
With primary emphasis on the U.S., the course covers social, economic and biological dimensions of food systems. Using classroom and community experience, the course combines academic approaches with practitioner knowledge. A community project is required. Prereq: Junior standing or consent of instructor
Typically Offered: Occasionally

A A E 343 Environmental Economics Credits: 3 - 4
Microeconomic principles underlying the use of natural resources such as air, water, forests, fisheries, minerals and energy. These principles are applied in the examination of pollution control, preservation vs. development, deforestation, and other environmental issues. Prereq: AAE 215, Econ 101 or equivalent, or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A A E 350 World Hunger and Malnutrition Credits: 3
Hunger and poverty in developing countries and the United States. Topics include: nutrition and health, population, food production and availability, and income distribution and employment.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A A E 373 Globalization, Poverty and Development Credits: 3
Addresses the process of globalization -- trade, international capital flows, labor migration and remittances, and aid -- from the perspective of developing economies and the development process. Prereq: AAE 215, Econ 101 or equivalent, or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A A E 374 The Growth and Development of Nations in the Global Economy Credits: 3
This course explores the roles of markets, states, and civil institutions, using economic theory, computer simulations, and historical experience to better understand the forces that shape the wealth and well-being of nations and people around the world. Prereq: Econ 101, or Econ 102, or AAE 215, or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A A E 375 Special Topics Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

A A E 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: Cons supervg inst, advisor, & intrshp progm coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

A A E 400 Study Abroad in Agricultural and Applied Economics Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer
A A E 419 Agricultural Finance Credits: 3
Introduction to basic finance concepts. Topics include financial statements, ratio analysis and interpretation, investment analysis, capital budgeting, credit concepts, and capital markets. Prereq: AAE 215 or Econ 101 or consent of instructor
Typically Offered: Fall

A A E 421 Economic Decision Analysis Credits: 4
Managerial oriented, applied presentation of microeconomic theory. Quantitative emphasis with extensive homework use of spreadsheets and written executive summaries of applied economic analyses. Applications on natural resources and agricultural markets. Prereq: Econ 301 & Stat 301, or equiv
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A A E 462 Latin American Economic Development Credits: 3
A historic-institutional analysis of development problems in the principal Latin American countries, with attention to differentiation of national growth patterns and alternative development strategies. Prereq: Econ 102 or 111 and Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A A E 473 Economic Growth and Development in Southeast Asia Credits: 3
Evaluates economic development strategies in Southeast Asia and their implications for growth, distribution and environment. Students learn trade and development theory as well as specific knowledge of Southeast Asian economic development. Prereq: Two crses in AAE and/or Econ, or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A A E 474 Economic Problems of Developing Areas Credits: 3
Analyzes aggregate growth, income distribution and poverty in lower income economies. Uses microeconomics of imperfect labor, capital and insurance markets to explore why some individuals advance economically as their economies grow and others fall behind. Considers implications of aggregate and micro analysis for national and international economic policy. Prereq: Sr st and two crses in econ
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A A E 477 Agricultural and Economic Development in Africa Credits: 3
Composition, organization, and techniques of agricultural production; economic change and development of agriculture, economic policies, special problems of developing African agriculture. Prereq: Two crses in AAE and/or Econ, or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

A A E 500 Senior Capstone Experience Credits: 3
Teaches students how to apply economic theory to economic problems, utilize quantitative techniques in economic analyses, and communicate findings and results of economic analyses. Prereq: Sr st; Math 211, AAE 420 & Stat 201, or equivs
Typically Offered: Spring

A A E 520 Community Economic Analysis Credits: 3
Economic theory (location and growth) applicable to community economic development; the role of private and public sector in local economic development, and techniques for economic analysis of community. Prereq: Econ 301 or equiv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A A E 526 Quantitative Methods in Agricultural and Applied Economics Credits: 4
Use of quantitative methods (mathematics, statistics, and optimization) to analyze problems faced by decision makers in natural resources and agriculture. Extensive homework requiring use of quantitative methods via spreadsheet tools to solve problems from an applied decision context. Prereq: Math 211, Econ 301, Stat 301, or equiv
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A A E 531 Natural Resource Economics Credits: 3
Economic concepts and tools relating to management and use of natural resources, including pricing principles, cost-benefit analysis, equity, externalities, economic rent, renewable and nonrenewable resources, and resource policy issues. Prereq: Econ 301 and Math 211, or equiv
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring
A A E 540 Intellectual Property Rights, Innovation and Technology Credits: 3
Uses economic concepts to illustrate the nature of technological innovation, competition, and economic growth. Topics: economics of the intellectual property protection (IPP); market structure and innovation; interaction between public and private sectors; IPP and anticompetitive policies; globalization. Prereq: Econ 301 or equiv. Typically Offered: Every Other Spring

A A E 561 Energy Markets Credits: 3
Energy resources are an essential element of the world's business, political, technical and environmental landscape. Analytic tools provided by the discipline of economics expands our understanding of this critical issue. Energy supply markets reviewed include both fossil fuels and renewable resources. Energy demand sectors include residential, commercial, industrial and transportation. Electricity represents an intermediate energy market. The interactions among these markets participants indicate how scarce resources are allocated among competing needs in the world economy. Prereq: ECON 101, ECON 111, or AAE 215. L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

A A E 567 Public Finance in Less Developed Countries Credits: 3
Potential and limitations of fiscal policy as a development instrument in low-income countries; tax harmonization in economic integration; case studies in tax reform; budgeting and planning. Prereq: Intro crse in econ thry, public finance or econ dev. L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

A A E 575 Special Topics Credits: 1 - 4
Special topics in Agricultural Economics at the intermediate level. Topics will vary from semester to semester. Prereq: Jr st or cons inst. Typically Offered: Fall, Spring, Summer

A A E 635 Applied Microeconomic Theory Credits: 3
Microeconomic theory applied to consumers, producers, markets, and welfare analysis. Emphasis is on the mathematics of duality and optimization methods. Computer applications of the theory. Prereq: Two semesters of calc & Econ 301, or cons inst. Typically Offered: Fall

A A E 636 Applied Econometric Analysis I Credits: 3
Introduction to the standard linear regression model with an emphasis on application issues. Includes statistical foundation, hypothesis testing, functional form, model selection and procedures for handling violations of model assumption. Prereq: Intermed stats or cons inst. Typically Offered: Fall

A A E 637 Applied Econometric Analysis II Credits: 3
Extension of the standard regression model is the primary focus. Topics: nonlinear regression models, maximum likelihood estimation, panel data, simultaneous equations, linear and nonlinear systems, analysis of discrete choice, limited dependent variables. Empirical economic applications and policy analysis. Prereq: AAE 636 or cons inst. Typically Offered: Spring

A A E 641 Foundations of Agricultural Economics Credits: 3
Overview of the economic performance of agriculture in feeding the growing world population. Examines contemporary economic issues in the food sector, along with research methods used in their analysis. Covers production analysis, risk and uncertainty, food demand, market structure, policy and welfare analysis. Prereq: AAE 635 and 636, or equivalent. Typically Offered: Spring

A A E 642 Foundations of Development Economics Credits: 3
An overview of development economics, covering both basic theory and empirical applications. Topics include economic growth, trade, measurement of poverty and inequality, human capital, agricultural household models, technology adoption, migration, credit, savings, insurance, infrastructure, and the environment. Prereq: AAE 635 and 636, or equivalent. Typically Offered: Spring
A A E 643 Foundations of Environmental and Natural Resource Economics  Credits: 3
Survey of historical topics and contemporary research questions in environmental and resource economics. Focus areas include foundational models of human/environment interaction, definition and evaluation of the suite of environmental policy instruments, measuring environmental costs and benefits, and examining natural resource use. Prereq: AAE 635 and 636, or equivalent
Typically Offered: Spring

A A E 652 Decision Methods for Natural Resource Managers  Credits: 3 - 4
Applications of quantitative methods, including optimization and simulation, to the management of natural resources, especially forests. Prereq: Math 211 or equiv & Comp Sci 132 or equiv
General Education: QR-B  L&S Breath: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring

A A E 671 Energy Economics  Credits: 3
The method, application, and limitations of traditional economic approaches to the study of energy problems. Topics include microeconomic foundations of energy demand and supply; optimal pricing and allocation of energy resources; energy market structure, conduct, and performance; macro linkages of energy and the economy; and the economics of regulatory and other public policy approaches to the social control of energy. Prereq: (Senior standing and ECON 101 or AAE 215) or graduate standing
L&S Breath: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

A A E 681 Senior Honors Thesis  Credits: 2 - 4
Prereq: Honors candidacy
Typically Offered: Fall, Spring, Summer

A A E 682 Senior Honors Thesis  Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & AAE 681
Typically Offered: Fall, Spring, Summer

A A E 691 Senior Thesis  Credits: 2
Prereq: Sr st and cons inst
Typically Offered: Fall, Spring, Summer

A A E 692 Senior Thesis  Credits: 2
Typically Offered: Fall, Spring, Summer

A A E 699 Special Problems  Credits: 1 - 4
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

A A E 705 Applied Microeconomics  Credits: 3
Focuses on developing a conceptual as well as empirical analysis of microeconomic behavior, including production and consumption analysis, technical change, and investment. Emphasizes empirical applications of microeconomics, with implications for efficiency and welfare analysis. Prereq: AAE 635 & Stat 309 or equiv
Typically Offered: Occasionally

A A E 706 Applied Risk Analysis  Credits: 3
Conceptual empirical analysis of economic behavior under risk and its implications for management and policy decisions. Emphasis on economic applications to the agricultural and food sector. Prereq: AAE 635
Typically Offered: Occasionally

A A E 707 Institutional Economics  Credits: 3
Comparative analysis of neoclassical and institutional economics, with emphasis on economic epistemology, agency theory, transaction costs, firms and markets, property rights, externalities, welfare economics, efficiency, and rules of social choice. Prereq: AAE 635 or equiv
Typically Offered: Not Applicable

A A E 729 The Microdynamics of Environment and Development  Credits: 3
Explores the intersection of environmental and development economics using advanced theoretical and empirical models to examine rural conservation and development, technology adoption and diffusion, and the dynamics of investment behavior in the presence of imperfect capital markets. Prereq: AAE 635 required, Econ 711 recommended
Typically Offered: Not Applicable
A A E 730 Frontiers in Development Economics 1 Credits: 3
Theory and empirical evidence on growth and development in low-income countries. Topics may include: measurement of poverty and inequality, risk and insurance, social networks, technology adoption, education, corruption, institutions, and behavioral economics. Prereq: Economics 709 and 711 or equivalent
Typically Offered: Spring

A A E 731 Frontiers in Development Economics 2 Credits: 3
Theory and evidence on growth and development in emerging economies, with primary focus on globalization, trade, labor markets and human capital. We use open-economy general equilibrium models to examine welfare implications of global shocks and domestic economic policies. Prereq: Economics 709 and 711 or equivalent
Typically Offered: Fall

A A E 732 Economics of Development 3 Credits: 3
Theory and empirical evidence on growth and development in low-income countries. Course will emphasize microeconomics topics, including household and intra-household models, asset accumulation, risk and asymmetric information. Prereq: Grad st in AAE or econ or cons inst
Typically Offered: Not Applicable

A A E 741 Advanced Policy Analysis Credits: 3
Economic efficiency and welfare at the micro and macro levels. Role of contracts and effects of policy instruments related to pricing and trade policy, under uncertainty. Role of technology and effects of globalization in developed and developing countries. Prereq: Econ 711 or cons inst
Typically Offered: Occasionally

A A E 746 Frontiers in Agricultural Economics 1 Credits: 3
Economics of agricultural technology innovation and adoption, properties and measurement of production and productivity, and impact evaluation. Empirical methods, including surveys, experiments, randomized trials, and instrumental variable methods of testing applied microeconomic models. Prereq: Econ 709 and 711, or equivalent
Typically Offered: Fall

A A E 747 Frontiers in Agricultural Economics 2 Credits: 3
Organization, design, and performance of food and agricultural markets. Industrial organization; firm boundaries, contracting, and collective action; spatial, temporal, and quality dimensions of market design. Prereq: Economics 709 and 711, or equivalent
Typically Offered: Spring

A A E 760 Frontiers in Environmental and Natural Resource Economics 1 Credits: 3
Economic tools and principles pertaining to the optimal management of natural resources. Theoretical models characterize efficient resource use and predict management decisions under different institutional settings. Empirical applications relate to public and private management of forests, fish, wildlife, minerals, and energy resources. Examples highlight the importance of discount rates, property rights, and government policies. Prereq: Economics 709 and 711 or equivalent
Typically Offered: Spring

A A E 762 Frontiers in Environmental and Natural Resource Economics 2 Credits: 3
The role of markets and government in the allocation of environmental goods and services. Topics include public goods, externalities and market failure; policy instruments for dealing with environmental quality problems such as air pollution; and distributional impacts of environmental regulations. Prereq: Econ 709 and 711, or equivalent
Typically Offered: Fall

A A E 770 Introduction to Quantitative Methods in Resource and Energy Economics Credits: 3
The fundamental mathematics and statistics necessary for the study of quantitative methods in resource and energy demand. Topics include the mathematics of optimization and its role in basic welfare theory and consumer demand; linear and matrix algebra and their application in both modeling consumer behavior and the statistical analysis of models; and the fundamentals of statistical analysis relevant to econometric analysis of resource and energy demand, including probability theory, sampling distributions, and statistical inference. Prereq: Enrollment in the Resource and Energy Demand Analysis Master's program, or Special Student status and consent of instructor
Typically Offered: Summer
A A E 771 Theory to Practice: Fundamentals of Resource and Energy Demand Analysis Credits: 4
Applying economic theory to the practice of resource and energy demand analysis. Topics include consumer demand theory and the proper modeling of demand systems, theoretical underpinnings of behavioral economics, welfare theory, cost benefit analysis and cost-effectiveness analysis, and technology adoption and diffusion. Prereq: Enrollment in the Resource and Energy Demand Analysis Master's program
Typically Offered: Fall

A A E 772 Applied Econometrics of Resource and Energy Demand Credits: 4
The estimation of the economic models of resource and energy demand, including evaluation of energy and resource programs, estimating demand systems in the study of dynamic pricing models, estimating discrete choice models, forecasting resource and energy demand from econometric models, and topics in the application of big-data analytics in resource and energy demand analysis. Prereq: AAE 636, and enrollment in the Resource and Energy Demand Analysis Master's program, or Special Student status and consent of instructor. Typically Offered: Spring

A A E 773 Seminar in Resource and Energy Demand Analysis Credits: 3
Current issues in resource and demand analysis, with weekly presentations by academic researchers and industry professionals, and an emphasis on identifying the correct conceptual approach and methods to address an issue. Prereq: AAE 771 and enrollment in the Resource and Energy Demand Analysis Master's program
Typically Offered: Spring

A A E 774 Practicum in Resource and Energy Demand Analysis I Credits: 1
The first in a 2-course sequence that comprises the capstone course in Resource and Energy Demand Analysis, in which students synthesize their training in a simulated "real world" analysis. The course is designed to reflect the full range of professional responsibilities of a resource/energy demand analyst, from data retrieval/cleaning to analysis to reporting. Prereq: AAE 771 and enrollment in the Resource and Energy Demand Analysis Master's program
Typically Offered: Spring

A A E 776 Practicum in Resource and Energy Demand Analysis II Credits: 3
The second in a 2-course sequence that comprises the capstone course in Resource and Energy Demand Analysis, in which students synthesize their training in a simulated "real world" analysis. The courses is designed to reflect the full range of professional responsibilities of a resource/energy demand analyst, from data retrieval/cleaning, to analysis, to reporting. Prereq: AAE 771 and enrollment in the Resource and Energy Demand Analysis Master's program
Typically Offered: Summer

A A E 780 Research Colloquium Credits: 3
For AAE Ph.D. students to develop a dissertation proposal. Working in groups and with some additional feedback from individual advisors. Developing research questions, literature search, word models, math models, testable hypotheses, identification strategies. Working with data, using LATEX, giving presentations. Peer review of weekly assignments. Developing cohort for subsequent feedback through dissertation writing and job search. Prereq: Consent of instructor
Typically Offered: Spring

A A E 799 Practicum in Agricultural and Applied Economics Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: Fall, Spring

A A E 835 Game Theory and Political Analysis Credits: 3
An introduction to the tools of game theoretic analysis, with reference to the use of game theory in political science. Intended for those desiring a basic familiarity with the theory, and for those planning further work in formal modeling. Prereq: Grad st
Typically Offered: Spring

A A E 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring
A A E  881 Benefit-Cost Analysis  Credits: 3
This course will present the welfare economics underpinnings for evaluating the social benefits and costs of
government activities. Issues such as uncertainty, the social discount rate, and welfare weights will be discussed;
case studies from the environmental, social policy, and agricultural areas will be studied. Prereq:  Grad st, Pub
Affr 818 & 880 or Pop Hlth 875 & at least one crse in econ or cons inst
Typically Offered: Fall

A A E  982 Interdepartmental Seminar in the Latin-American Area  Credits: 1 - 3
Prereq:  Grad st & cons inst
Typically Offered: Occasionally

A A E  990 Research and Thesis  Credits: 1 - 12
Prereq:  Cons inst
Typically Offered: Fall, Spring, Summer

A A E  999 Special Work - Agricultural and Applied Economics  Credits: 1 - 3
Prereq:  Graduate or professional standing
Typically Offered: Fall, Spring, Summer

AGROECOLOGY

AGROECOL  371 Managed Grazing Field Study  Credits: 1 - 2
This is a course for students who are interested in developing a comprehensive understanding of the principles,
practices, and conservation potential of managed grazing systems, and how these farming systems may
contribute to the sustainability and diverse tapestry of Wisconsin's working landscape. Students will visit managed
grazing systems of successful grazing-based farmers (grazers) across southern/central counties in Wisconsin,
and/or research sites at UW's Arlington and/or Lancaster Research Stations and/or the Discovery Farms Program. Students will have the opportunity to discuss at length with farm
managers and researchers the practices in place at each farm and research site. Read
Typically Offered: Fall

AGROECOL  400 Study Abroad in Agroecology  Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to
existing UW courses. Prereq:  Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

AGROECOL  699 Special Problems  Credits: 1 - 3
Scholarship on special topics, under the supervision of an agroecology faculty member. Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AGROECOL  701 The Farm as Socio-Environmental Endeavor  Credits: 3
Farms may be analyzed as intentional entities shaped by the contexts in which they must operate. This course
explores how these biophysical and social contexts both exert constraints and provide opportunities, leading to
the diversity of farms observed. Prereq:  Cons inst
Typically Offered: Fall

AGROECOL  702 The Multifunctionality of Agriculture  Credits: 3
Agroecology systems provide a variety of social, economic, and ecological functions to society, each with a
different network of stakeholders. This course explores methods of evaluating these diverse functions and
perspectives, with a special focus on participatory approaches. Prereq:  Cons inst
Typically Offered: Spring

AGROECOL  710 Agroecology Seminar  Credits: 1
Weekly seminar on topics in agroecology. Prereq:  Cons inst
Typically Offered: Occasionally

AGROECOL  720 Agroecology Field Study  Credits: 1 - 3
Field study of farms, processing, marketing, distribution, and policy-making in the food system. Courses will be
several days of visits, discussions with the operators, and student-faculty discussion sections. Presentations or
written reports may be required. Prereq:  Cons inst
Typically Offered: Occasionally
AGROECOL  724 Agroecosystems and Global Change  Credits: 3
Impacts of global change drivers (climate change, atmospheric chemistry, bioenergy, urbanization, policy) on agroecosystems and their associated goods and services; environmental impacts of agricultural land use and feedbacks to climate; modeling approaches; critical review of current scientific literature.  Prereq:  Grad st; coursework in either college-level biology or ecology; 1 sem college-level chemistry or physics; or cons inst
Typically Offered:  Occasionally

AGROECOL  875 Topics in Agroecology  Credits: 1 - 3
This course number provides for opportunities to develop and test possible new courses, or to accommodate visiting scholars who may wish to offer a course.  Prereq:  Cons inst
Typically Offered:  Occasionally

AGROECOL  990 Research  Credits: 1 - 12
Independent research on the student's thesis or degree project.  Prereq:  Cons inst
Typically Offered:  Occasionally

AGRONOMY

AGRONOMY  1 Cooperative Education/Co-op in Agronomy  Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Agronomy 399.  Prereq:  So st, and consent of supervising instructor and academic advisor.
Typically Offered:  Fall, Spring, Summer

AGRONOMY  100 Principles and Practices in Crop Production  Credits: 4
Plant science applied to the growth, production, management, distribution and utilization of field crops.  Prereq:  Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered:  Fall

AGRONOMY  203 Introduction to Global Health  Credits: 3
Introduces students to global health concepts through multidisciplinary speakers dedicated to improving health through their unique training. It targets students with an interest in public health and those who wish to learn how their field impacts their global issues.  Prereq:  None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered:  Fall

AGRONOMY  289 Honors Independent Study  Credits: 1 - 2
Prereq:  Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288
Typically Offered:  Fall, Spring, Summer

AGRONOMY  299 Independent Study  Credits: 1 - 3
Prereq:  Open to Freshmen or Sophomore or Junior standing & written consent of instructor
Typically Offered:  Fall, Spring, Summer

AGRONOMY  300 Cropping Systems  Credits: 3
Agronomic cropping systems of the Midwest: environmental impacts, productivity, and profitability. Cropping system diversification and sustainable agriculture. An agroecological approach, the application of ecological concepts and principles for the improvement of cropping systems is emphasized.  Prereq:  Agronomy 100 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Spring

AGRONOMY  302 Forage Management and Utilization  Credits: 3
Establishment, harvesting and utilization of forage crops for use as hay, pasture and silage. Emphasis on cool season perennial grasses and legumes.  Prereq:  Jr st & Agron 100 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall

AGRONOMY  326 Plant Nutrition Management  Credits: 3
Functions, requirements and uptake of essential plant nutrients; chemical and microbial processes affecting nutrient availability; diagnosis of plant and soil nutrient status; fertilizers and efficient fertilizer use in different tillage systems.  Prereq:  Soil Sci 230 or 301 and one of the following: Bot 100 or 130; Hort 120 or 122; Agron 100
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Spring
AGRONOMY 328 Integrated Weed Management Credits: 4
Prevalence and persistence of weeds, evaluation of competitive and allelopathic effects, methods and principles of control including proper identification of common weed species. Prereq: Agron 100 or intro crse in botany or cons inst
Typically Offered: Fall

AGRONOMY 338 Plant Breeding and Biotechnology Credits: 3
Principles of transferring plant genes by sexual, somatic, and molecular methods and the application of gene transfer in plant breeding and genetic engineering to improve crop plants. Prereq: Botany 130 or Genetics 160 or Biocore 301 or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

AGRONOMY 339 Plant Biotechnology: Principles and Techniques I Credits: 4
Theoretical and practical training in plant biotechnology including molecular biology, protein biochemistry and basic bioinformatic techniques used in fundamental and applied research on plants. Valuable hands-on training to those interested in careers in biotechnology. Prereq: Bot/Zoo 152 or equiv & Chem 104 or equiv
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

AGRONOMY 340 Plant Cell Culture and Genetic Engineering Credits: 4
Theoretical and practical training in plant cell and tissue culture, and plant genetic engineering. Includes overview of current techniques, biosafety and regulatory requirements, and experimental design and analysis used in fundamental and applied research on plants. Valuable hands-on training to those interested in careers in biotechnology. Prereq: Botany 130 or Botany/Zoology/Biology 152 or Zoology 102, and Chemistry 104, 109, or 116
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

AGRONOMY 350 World Hunger and Malnutrition Credits: 3
Hunger and poverty in developing countries and the United States. Topics include: nutrition and health, population, food production and availability, and income distribution and employment.
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

AGRONOMY 354 Diagnosing and Monitoring Pest and Nutrient Status of Field Crops Credits: 1
This course is designed to provide students with information necessary to diagnosis and monitor corn, soybean, alfalfa and wheat for pests (insects, weeds, diseases) and nutrient deficiency symptoms including perspectives from Agronomy, Entomology, Horticulture, Plant Pathology and Soil Science. Proper soil and pest sampling information will be provided as will proper crop staging techniques which are essential for pest and nutrient management. Prereq: None
Typically Offered: Spring

AGRONOMY 360 Genetically Modified Crops: Science, Regulation & Controversy Credits: 2
Explores how and why genetically modified (GM) crops are created and their regulation at the federal and state level. Through case studies, students will learn about the impacts of GM crops and critically evaluate arguments both for and against their use. Readings and discussion introduce students to the complex economic, cultural, and political issues surrounding GM crops. Prereq: BIOLOGY/BOTANY 130, BIOLOGY/BOTANY/ZOOLOGY 151, BIOCORE 381, GENETICS 160, GENETICS 466 or BIOLOGY/ZOOLOGY 101
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

AGRONOMY 370 Grassland Ecology Credits: 3
Understand factors driving global, continental, regional, and local distribution of grasslands. Discuss how management affects provision of grassland ecosystem goods and services. Compare and contrast plant community and ecosystem dynamics in native prairie and intensively managed pastures. Prereq: Intro crse in Agronomy, Botany, or Soil Sci; or Bot/Zoo/Biol 151-152; or Biocore 301 or 333
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

AGRONOMY 371 Managed Grazing Field Study Credits: 1 - 2
This is a course for students who are interested in developing a comprehensive understanding of the principles, practices, and conservation potential of managed grazing systems, and how these farming systems may contribute to the sustainability and diverse tapestry of Wisconsin's working landscape. Students will visit managed grazing systems of successful grazing-based farmers (grazers) across southern/central counties in Wisconsin, and/or research sites at UW's Arlington and/or Lancaster Research Stations and/or the Discovery Farms Program. Students will have the opportunity to discuss at length with farm managers and researchers the practices in place at each farm and research site. Read
Typically Offered: Fall
AGRONOMY 375 Special Topics Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

AGRONOMY 377 Cropping Systems of the Tropics Credits: 3
Crops and cropping systems of the tropics. The environmental requirements of the major crops, their botany, and how they fit into local farming systems will be emphasized. For students with broad interests in tropical agriculture and food production. Prereq: Intro crse in botany or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AGRONOMY 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: Cons suprvsg inst, advisor, & intrshp progm coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AGRONOMY 400 Study Abroad in Agronomy Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

AGRONOMY 500 Senior Capstone Experience Credits: 2
A stepping stone between the classroom and society. Emphasizes discussion and activities for enhancing integration of diverse bodies of knowledge, critical thinking, and effective written and oral communication. Prereq: Sr st;
Agronomy 399, 699, or cons inst
Typically Offered: Spring

AGRONOMY 501 Principles of Plant Breeding Credits: 3
Principles involved in breeding and maintaining economic crops; factors affecting the choice of breeding methods; alternative approaches through hybridization and selection. Prereq: Intro crse in genetics, 1 yr biol
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AGRONOMY 502 Techniques of Plant Breeding Credits: 1
Lab and field techniques used in breeding and maintaining economic crops. Prereq: An intro crse in genetics & 1 yr of biology
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AGRONOMY 532 Environmental Biophysics Credits: 3
Plant-environment interactions with particular reference to energy exchanges and water relations. Models are used to provide a quantitative synthesis of information from plant physiology, soil physics, and micrometeorology with some consideration of plant-pest interactions. Prereq: Intro calc, Physics 103, Botany 130 & comp programing; or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AGRONOMY 555 Plant Functional Genomics and Bioinformatics Credits: 2 - 3
A survey of the underlying technologies of genomic research with a special emphasis on their applications in plant science. Provides students with a deeper understanding of the many public resources and databases being generated by large-scale genomics projects. Prereq: Grad st; undergrads with Genetics 466 or equiv or cons inst
Typically Offered: Spring

AGRONOMY 565 The Ethics of Modern Biotechnology Credits: 3 - 4
Study of ethical issues arising from the application of modern biotechnology to microorganisms, crops, and non-human animals. Readings cover moral theory, technology studies, political philosophy, the science used in biotechnology, and current regulations governing its use. Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AGRONOMY 632 Ecotoxicology: The Chemical Players Credits: 1
Introduction to natural and man-made toxins/toxicants, their distribution, transport, and fate in the environment. Includes lectures, current research presentations, and discussions. Prereq: 2 sem intro biol & 1 sem organic chem, or cons inst
Typically Offered: Occasionally
AGRONOMY 633 Ecotoxicology: Impacts on Individuals  Credits: 1
Addresses absorption, biotransformation, elimination of toxins in a wide variety of taxa (plants, invertebrates, vertebrates), and includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 632, or 2 sem intro biol & M&Envtox 631, or cons inst
Typically Offered: Occasionally

AGRONOMY 634 Ecotoxicology: Impacts on Populations, Communities and Ecosystems  Credits: 1
Focuses on the impact of toxicants on populations, communities, ecosystems, and includes risk evaluation. Includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 633, or M&EnvTox 625, 626 & 631, or cons inst
Typically Offered: Occasionally

AGRONOMY 681 Senior Honors Thesis  Credits: 2 - 4
Prereq: Hon progm candidacy
Typically Offered: Fall, Spring, Summer

AGRONOMY 682 Senior Honors Thesis  Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Agronomy 681
Typically Offered: Fall, Spring, Summer

AGRONOMY 699 Special Problems  Credits: 1 - 4
Offered at Madison and the branch experiment stations. Prereq: Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AGRONOMY 724 Agroecosystems and Global Change  Credits: 3
Impacts of global change drivers (climate change, atmospheric chemistry, bioenergy, urbanization, policy) on agroecosystems and their associated goods and services; environmental impacts of agricultural land use and feedbacks to climate; modeling approaches; critical review of current scientific literature. Prereq: Grad st; coursework in either college-level biology or ecology; 1 sem college-level chemistry or physics; or cons inst
Typically Offered: Occasionally

AGRONOMY 771 Experimental Designs  Credits: 1
Review of methods for controlling error in research experiments; review and in-depth development of factorial treatment designs; theory, analysis, and examples of advanced experimental designs for plant and animal research. Prereq: Stat 571
Typically Offered: Occasionally

AGRONOMY 772 Applications in ANOVA  Credits: 1
Development of models, programs, inferences, and interpretations of analysis of variance in biological research; mixed vs. random effects models and their development; choosing the correct inference range; variance and covariance analyses; repeated measures; dealing with missing data; SAS programming. Prereq: Stat 571
Typically Offered: Occasionally

AGRONOMY 799 Practicum in Agronomy Teaching  Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: Occasionally

AGRONOMY 811 Biometrical Procedures in Plant Breeding  Credits: 3
Use of statistical methods to facilitate improvements in quantitative traits of cultivated plants. Prereq: Intro crses in genetics & stat
Typically Offered: Fall

AGRONOMY 812 Selection Theory for Quantitative Traits in Plants  Credits: 2
Discuss advanced topics in selection theory and the utilization of molecular markers in selection. Prereq: AGRONOMY/HORT 811
Typically Offered: Occasionally

AGRONOMY 850 Advanced Plant Breeding  Credits: 3
Concepts in improvement of major crop species. Historically important breeding methods and new approaches. Lectures and discussion. Prereq: Agron/Hort 338 or 501 or cons inst
Typically Offered: Occasionally
AGRONOMY 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

AGRONOMY 920 Seminar Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

AGRONOMY 953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

AGRONOMY 957 Seminar-Plant Breeding Credits: 1
Prereq: Grad st
Typically Offered: Fall, Spring

AGRONOMY 990 Research Credits: 1 - 9
Prereq: Grad st & cons inst
Typically Offered: Occasionally

ANIMAL SCIENCES

AN SCI 1 Cooperative Education/Co-op in Animal Sciences Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in An Sci 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring

AN SCI 101 Introduction to Animal Sciences Credits: 4
Anatomy physiology, nutrition, genetics, reproduction, marketing, meats and management of dairy and beef cattle, swine, sheep, poultry and horses; lectures, laboratories and discussion. Field trips. Prereq: Open to Freshmen
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AN SCI 110 Animal Handling Credits: 1
Hands-on course that gives students an understanding of livestock handling techniques, proper restraint, administering injections, and drawing blood samples. Students also learn about animal response to human presence and the effect of facility design on animal behavior. Prereq: An Sci/Dy Sci 101
Typically Offered: Spring

AN SCI 150 Career Orientation Animal/Poultry Sciences Credits: 1
An introduction to resume preparation, student employment, internships, and graduate and professional school programs with presentations by numerous graduates who discuss their career path following a B.S. degree in Animal Science or Poutry Science. Prereq: An Sci/Dy Sci 101. Open to Fr
Typically Offered: Spring

AN SCI 200 The Biology and Appreciation of Companion Animals Credits: 3
A systematic coverage of many of the animals (including birds) that humans keep as their social companions. The classification, nutritional requirements, environmental considerations, reproductive habits, health, legal aspects and economics of companion animals and their supportive organizations. Prereq: Crse in zoo or equiv or cons inst. Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AN SCI 220 Growth, Composition and Evaluation of Meat Animals Credits: 4
Principles and application of objective and subjective techniques for identifying quantitative and qualitative traits associated with breeding animals, market animals and meat. Statistics, growth, anatomy, genetics. Field trips to livestock farms and meat processing plants. Prereq: An Sci/Dy Sci 101 or cons inst
Typically Offered: Fall
AN SCI 221 Advanced Meat Animal Evaluation Lab  Credits: 2  
Review and practical application of subjects covered in Animal Sciences 220. Field trips to livestock farms, meat 
processing plants and to the National Meat Animal Evaluation Contest. Prereq:  An Sci 220 & cons inst  
Typically Offered:  Spring

AN SCI 250 Horse Science and Management  Credits: 3  
General principles. Emphasis on anatomy and physiology, management, behavior, reproduction, health, and 
nutrition. Lab period offers hands-on learning opportunities and short field trips. Mandatory field trip on a weekend 
day. Prereq:  An Sci/Dy Sci 101 or cons inst. Open to Fr  
L&S Breadth:  Biological Science  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

AN SCI 289 Honors Independent Study  Credits: 1 - 2  
Prereq:  Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288  
Typically Offered:  Fall, Spring, Summer

AN SCI 299 Independent Study  Credits: 1 - 3  
Prereq:  Open to Freshmen, Sophomore or Junior standing & written consent of instructor  
Typically Offered:  Fall, Spring, Summer

AN SCI 305 Introduction to Meat Science and Technology  Credits: 4  
Application of biological, technological, and economical principles to muscle and related tissue utilized for food.  
Prereq:  Zool 101 & 102, or Zool 151 & 152 (recommended); Chem 103  
Typically Offered:  Spring

AN SCI 311 Comparative Animal Nutrition  Credits: 3  
Nutrients and their source, assimilation, function and requirement. Prereq:  BmolChem 314 or Chem 341 or 
Chem 343 or cons inst  
L&S Breadth:  Biological Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

AN SCI 313 Animal Feeds and Diet Formulation  Credits: 1  
Designed as a companion course for Dairy Science 311 (comparative animal nutrition) with emphasis on 
quantitative and practical aspects of animal feeds and diet formulation. Prereq:  Math 112, Dy Sci/An Sci 101, or 
consent of instructor; concurrent registration in Dy Sci/An Sci/Nutr Sci 311 recommended  
L&S Breadth:  Biological Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

AN SCI 314 Poultry Nutrition  Credits: 3  
Provides a conceptual understanding of nutrient requirements for optimal growth and production of commercial 
poultry species. The use of computer programming for feed formulation is emphasized. Field trips are planned.  
Prereq:  An Sci/Dy Sci 101 or Poul Sci 101  
Typically Offered:  Summer

AN SCI 315 Poultry Enterprise Management  Credits: 3  
Fundamental business and economic principles and practices for successful poultry production with emphasis on 
problem solving in flock management. Software application core programs will be Microsoft Office for Windows 
suite. Prereq:  An Sci/Dy Sci 101 or Poul Sci 101, Ag Econ 215 or Econ 101 or equivalent. Open to Freshmen  
Typically Offered:  Summer

AN SCI 320 Animal Health and Disease Management  Credits: 3  
Principal causes and identification of animal diseases, common diseases of farm animals, zoonoses and public 
health, disease prevention and management including biosecurity measures and host immune responses.  
Prereq:  Zoology 101/102, Biology 152, Biocore or cons inst  
Typically Offered:  Spring

AN SCI 321 Food Laws and Regulations  Credits: 1  
Food laws and regulations, regulatory and commercial grading standards used in the food industry. Prereq:  Jr st 
or cons inst  
Typically Offered:  Spring
AN SCI 361 Introduction to Animal and Veterinary Genetics Credits: 2
The molecular basis for inheritance of monogenic and polygenic traits related to animal disease and production. An introduction to the principles of improving animal health and performance by selection and mating systems in companion animals, horses, livestock, and poultry. Prereq: Genetics 160 or 466 or con reg & course in statistics
Typically Offered: Spring

AN SCI 362 Veterinary Genetics Credits: 2
The genetic basis for predisposition to disease or resistance to disease in livestock and companion animal species. Genetic defects, their discovery, diagnosis and treatment. Prereq: Dy Sci/An Sci 361; or Genetics 160 or 466 & Zool/Bot 152
Typically Offered: Spring

AN SCI 363 Principles of Animal Breeding Credits: 2
Application of the principles of quantitative genetics to the improvement of livestock and poultry; breeding value estimation and selection techniques; effects of inbreeding and hybrid vigor; crossbreeding systems. Prereq: Dy Sci/An Sci 361
Typically Offered: Spring

AN SCI 370 Livestock Production and Health in Agricultural Development Credits: 3
Physical, biological and social nature of animal agriculture systems and their improvement in developing countries; analysis of the state of livestock research and development in the developing countries and the world role of U.S. animal agriculture. Prereq: An Sci/Dy Sci 101 or cons inst
Typically Offered: Fall

AN SCI 373 Animal Physiology Credits: 3
Students will develop an understanding of physiological processes that regulate the body, learn the anatomy and function of different physiological systems, describe interactions between organ systems, study regulation of an organ system from the molecular to whole animal level, and identify differences between species in the same systems. Prereq: Biology/Zoology 101 or Biology/Zoology/Botany 151 and Biology/Zoology/Botany 152
Typically Offered: Spring

AN SCI 375 Special Topics Credits: 1 - 4
Prereq: Cons inst  
L&S Level: Intermediate  Typically Offered: Fall, Spring, Summer

AN SCI 399 Coordinating Internship/Cooperative Education Credits: 1 - 8
Prereq: So or Jr or Sr st & cons of supervising inst, advisor, and internship program coordinator  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AN SCI 400 Study Abroad in Animal Sciences Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

AN SCI 414 Ruminant Nutrition Credits: 2
Integrates basic nutrition concepts and ration balancing skills by teaching students to balance and troubleshoot rations for various domesticated ruminants. An Sci/Dy Sci 313 is recommended. Prereq: AN SCI/DY SCI 311  
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AN SCI 415 Application of Monogastric Nutrition Principles Credits: 2
Nutrient requirements for growth and production of monogastric animals. Discuss concepts of establishing nutrient requirements and feeding strategies. Laboratory exercises are designed to develop problem solving skills required for the assessment of nutritional adequacy and economical soundness of feeding programs. Prereq: An Sci/Dy Sci 311 & 313
Typically Offered: Spring

AN SCI 430 Sheep Production Credits: 3
Application of recent research in breeding, feeding, health, and management to develop an efficient sheep production system. Includes an active, hands-on laboratory working with sheep. Prior completion of AN SCI/DY SCI 313 highly recommended. Prereq: AN SCI/DY SCI/NUTR SCI 311, AN SCI/DY SCI 361, or AN SCI/DY SCI 434  
Typically Offered: Spring
AN SCI 431 Beef Cattle Production Credits: 3
Typically Offered: Fall

AN SCI 432 Swine Production Credits: 3
Application of research findings in breeding, feeding, management and marketing to modernize production. Lab: Farm visits, practical exercises in testing changes, "tools" used by producers. Prior completion of AN SCI/DY SCI 313 highly recommended. Prereq: AN SCI/DY SCI/NUTR SCI 311, AN SCI/DY SCI 361, or AN SCI/DY SCI 434
Typically Offered: Spring

AN SCI 433 Equine Business & Management Credits: 3
Typically Offered: Spring

AN SCI 434 Reproductive Physiology Credits: 3
Principles of reproductive physiology, improvement of fertility, and artificial insemination. Prereq: Jr st, An Sci/Dy Sci 101, or Zool 101 & 102; Zool 151 & 152 recommended
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AN SCI 435 Animal Sciences Proseminar Credits: 2
Methods of assessing information quality are studied. Each student develops an analytical and critical seminar on a topic of personal interest in the animal sciences. Prereq: Sr st
Typically Offered: Fall

AN SCI 444 Laboratory Techniques in Mammalian Gamete and Embryo Biology Credits: 3
This course is designed as an immersion experience based on the gradual release methodology of information delivery. Students are engaged in active/process learning whereby the principles and themes presented in the lecture portion of the course are immediately put into practice in the laboratory component of the course. Expected learning outcomes and learning objectives are therefore integrated into each lecture and laboratory. Each subsequent learning objective builds upon the knowledge acquired from the previous learning objective thus developing a scaffold or framework from which to proceed. This course will present students with challenges from cognitive and affective domains as they pr
Typically Offered: Summer

AN SCI 468 Managing the Environmental Impacts of Livestock Operations Credits: 2
Introduces nonpoint pollution policies and regulations and environmental losses impacting air and water quality. Discuss management practices that influence the cycling and balance of nitrogen and phosphorus across a farm and its components (livestock, crop and soil). Prereq: Jr st
Typically Offered: Spring

AN SCI 472 Animal Agriculture and Global Sustainable Development Credits: 1
This course examines issues related to global agriculture and healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies, students will learn the interdependence between US agriculture and agriculture in emerging economies. Some topics covered include population and food, immigration, the environment; crop and livestock agriculture; global trade; sustainability; food security, the role of women in agriculture, and the role of dairy products in a healthy diet. Prereq: None
Typically Offered: Fall

AN SCI 473 International Field Study in Animal Agriculture and Sustainable Development Credits: 2
This course is the field study component to DY SCI 472, which examines issues related to global agriculture and healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies, students will learn the interdependence between US agriculture and agriculture in emerging economies. Some topics covered include population and food, immigration, the environment; crop and livestock agriculture; global trade; sustainability; and the role of women in agriculture and the role of dairy products in a healthy diet. Prereq: DY SCI 472
Typically Offered: Spring
AN SCI 503 Avian Physiology Credits: 3
Principles of organ and system function with emphasis on male and female reproduction, embryonic development and factors affecting hatchability. Prereq: An Sci/Dy Sci 101 or consent of instructor
Typically Offered: Summer

AN SCI 508 Poultry Products Technology Credits: 3
Procurement, processing and distribution of poultry meat, eggs and derived products; factors affecting quality, including methods of determining quality. Prereq: Cons inst
Typically Offered: Summer

AN SCI 511 Breeder Flock and Hatchery Management Credits: 3
Typically Offered: Summer

AN SCI 512 Management for Avian Health Credits: 3
Typically Offered: Summer

AN SCI 515 Commercial Meat Processing Credits: 2
Principles and procedures in the commercial manufacture of processed meat products; sausage manufacturing, curing, smoking, freezing and packaging. Prereq: An Sci 305 or Food Sci 410 or cons inst. Zool 101 & 102, or Zool 151 & 152 (recommended); Chem 103
Typically Offered: Fall

AN SCI 520 Ornithology Credits: 3
Introduction to bird biology, ecology, and behavior. Topics include the evolutionary origin of birds and flight, anatomy and physiology, functional morphology, migration, communication, reproductive strategies, ecological adaptations and roles, and biogeographical patterns. Prereq: BIOLOGY/ZOOLOGY 101 and 102, BIOLOGY/BOTANY/ZOOLOGY 151 and 152 or BIOCORE 381 and 382
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AN SCI 521 Birds of Southern Wisconsin Credits: 3
Outdoor and indoor labs/lectures emphasizing identification of southern Wisconsin birds by sight and vocalization. Two required Saturday field trips in Southern Wisconsin. Prereq: BIOLOGY/ZOOLOGY 101 and 102 or BIOLOGY/BOTANY/ZOOLOGY 151 and 152 or BIOCORE 381 AND 382
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AN SCI 610 Quantitative Genetics Credits: 3
An advanced approach with emphasis on statistical foundations. Classical theory with extensions to maternal and paternal effects. Selection theory is considered in depth. Prereq: Genetics 466 and Statistics 572 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AN SCI 626 Experimental Diet Design Credits: 1
Discuss nutrient requirements, composition of ingredients used to meet requirements and the mathematical steps involved in diet formulation with emphasis on research animals and human subjects. Prereq: Grad st; Stat 301 or equiv & Nutr Sci 510 or con reg or cons inst
Typically Offered: Fall

AN SCI 660 Electron Microscopy: Theory & Practice Credits: 3
Prereq: Cons inst
Typically Offered: Summer

AN SCI 681 Senior Honor Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring, Summer

AN SCI 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & An Sci 681
Typically Offered: Fall, Spring, Summer
AN SCI 691 Thesis Credits: 2
Prereq: Sr st & cons inst
Typically Offered: Occasionally

AN SCI 692 Thesis Credits: 2
Typically Offered: Occasionally

AN SCI 699 Special Problems Credits: 1 - 3
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AN SCI 703 Advanced Reproductive Physiology Credits: 3
Current topics: gametogenesis, embryonic development, physiology of reproductive organs, and endocrine control of fertility; lectures, discussion.  Prereq: Grad st, Zoology 630 or cons inst
Typically Offered: Occasionally

AN SCI 710 Chemistry of the Food Lipids Credits: 2
Chemical constitution, structures, reactions, stereochemistry of fats, phospholipids, related compounds; methods of isolation, characterization; synthesis; relation of structure to physical properties.  Prereq: Biochem 601; Chem 341 or cons inst
Typically Offered: Occasionally

AN SCI 725 Muscle Biology Credits: 2
Anatomy, physiology, and biochemistry of muscle.  Prereq: Crse in biochem or biomolecular chem & physiol or cons inst
Typically Offered: Occasionally

AN SCI 799 Practicum in Animal Sciences Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance.  Prereq: Grad st & cons inst
Typically Offered: Occasionally

AN SCI 848 Genetic Epidemiology Credits: 3
This course will provide an introduction to genetic epidemiology. Topics will include a general overview of genetics and Mendelian and complex inheritance, as well as various elements of study design, including participant ascertainment; phenotype definition; biologic sample selection; genotyping, sequencing, and quality control; measurement of covariates, and choice of analytic methods. We will briefly discuss some of the original study designs and then focus on current study designs for the remainder of the class. Additional emerging topics will be briefly touched upon. Students will complete short homework assignments to enforce concepts learned during lectures, discuss journal articles,
Typically Offered: Every Other Fall

AN SCI 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

AN SCI 931 Seminar in Animal Nutrition Credits: 1
Discussion of literature that has a bearing on animal nutrition. Students are to survey the literature and present a seminar.  Prereq: Grad st & cons inst
Typically Offered: Occasionally

AN SCI 950 Seminar in Animal Genomics Credits: 1
Study of current literature in gene mapping, study designs, and application of markers in genetic improvement programs.  Prereq: Grad st & cons inst
Typically Offered: Occasionally

AN SCI 951 Seminar in Animal Breeding Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally
AN SCI 954 Seminar in Endocrinology-Reproductive Physiology  Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

AN SCI 990 Research  Credits: 1 - 12
Prereq: Grad st and cons inst
Typically Offered: Occasionally

BIOCHEMISTRY

BIOCHEM 1 Cooperative Education/Co-op in Biochemistry  Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Biochemistry 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

BIOCHEM 100 Biochemistry Freshman Seminar  Credits: 1
The Freshman Biochemistry Seminar will introduce freshmen to the discipline of biochemistry, to the UW Biochemistry Department, to some of the research projects the faculty are pursuing, to the University, and to the career options open to an individual with a biochemistry undergraduate degree. Prereq: None
Typically Offered: Fall, Spring

BIOCHEM 104 Molecular Mechanisms, Human Health & You  Credits: 3
Students in the course will be introduced to the fundamentals of genetics and evolution, and with this foundation we will discuss "big-picture issues" in public health and epidemiology. Specifically, we will discuss the building blocks of the cell, how information is processed from DNA into protein, and how cellular processes are regulated. Current and medically relevant topics such as cancer, inflammation, infections, depression and drug addiction will provide the framework for further discussion of topics such as the regulation of gene expression and cellular metabolism. A major goal of this course is for students to learn about their own health and to be able to explore and question science.
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOCHEM 289 Honors Independent Study  Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & So or Jr st. Inter-Ag 288
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

BIOCHEM 299 Independent Study  Credits: 1 - 3
Prereq: Open to Fr, So or Jr st & written cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOCHEM 375 Special Topics  Credits: 1 - 4
Prereq: Cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOCHEM 399 Coordinative Internship/Cooperative Education  Credits: 1 - 8
Prereq: So, Jr or Sr st & cons suprsvg inst, advisor, and intrshp prog coordinator
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOCHEM 400 Study Abroad in Biochemistry  Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

BIOCHEM 501 Introduction to Biochemistry  Credits: 3
Chemistry, nutrition, and metabolism of biological systems. Prereq: CHEM 341 or 343 or concurrent enrollment; or graduate student
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
BIOCHEM 507 General Biochemistry I Credits: 3  
Chemistry of biological materials, intermediary metabolism and protein structure. First semester of a year-long sequence in biochemistry; Biochemistry 508 is offered in the spring. This course is designed and recommended for undergraduate Biochemistry majors, but others are welcome. Prereq: CHEM 345  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BIOCHEM 508 General Biochemistry II Credits: 3 - 4  
Biosynthesis of biological molecules, signal transduction mechanisms, chemistry and metabolism of nucleic acids, protein synthesis, and molecular and cellular biology. Prereq: A grade of BC or higher in Biochem 507, or consent of instructor. Honors credits available with consent of instructor  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BIOCHEM 510 Biochemical Principles of Human and Animal Nutrition Credits: 3  
Lectures in nutrition for students with a substantial background in biochemistry. Emphasis on biochemical and physiological fundamentals of nutrition. Discussion of protein, fat, carbohydrate, energy, minerals and vitamins and their roles and interrelationships in nutrition and metabolism. Prereq: (BMOLCHEM 314 or 503) or (BIOCHEM 501 or 507)  
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOCHEM 511 Undergraduate Seminar Credits: 1  
Required of all senior undergraduate majors in biochemistry. Prereq: Biochem 501 or 507 & 508 or cons inst. Required of all senior undergrad Biochem majors  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOCHEM 550 Topics in Medical Biochemistry Credits: 2  
Lectures. Biochemical and molecular analysis of selected human diseases. Topics will include lipid metabolism and atherosclerosis, cell cycle regulation and oncogene function in cancer, and human immunodeficiency virus (HIV) structure, life cycle, and mechanism of acquired immunodeficiency disease syndrome (AIDS). Prereq: Biochem 501, 507, or consent of instructor  
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BIOCHEM 551 Biochemical Methods Credits: 4  
Lab and student seminar. Introduction to modern biochemical laboratory techniques and current biochemical literature. Students will present a seminar based upon scientific literature that parallels experiments they will perform in lab. For advanced undergraduates and non-biochemistry graduate students. Prereq: Completion of or concurrent enrollment in Biochemistry 501 or 507  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOCHEM 575 Biology of Viruses Credits: 2  
Lecture-discussion. Broad coverage of animal virology taught at molecular level. Topics include virus structure, viral replication/lifecycle, aspects of pathogenesis and prevention. Prereq: Biocore 301/302, or AP score of 4 or 5 and Zoology 151 or 152; or MM&I 301  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BIOCHEM 601 Protein and Enzyme Structure and Function Credits: 2  
Protein structure and dynamics. Protein folding. Physical organic chemistry of enzymatic catalysis. Analysis of enzyme kinetics and receptor-ligand interactions. Enzymatic reaction mechanisms. Prereq: CHEM 345 and (BIOCHEM 501 or 507)  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BIOCHEM 606 Mathematical Methods for Structural Biology Credits: 3  
Intended to provide a rigorous foundation for mathematical modeling of biological structures. Mathematical techniques include ordinary and partial differential equations, 3D Fourier analysis and optimization. Biological applications include protein folding, molecular dynamics, implicit solvent electrostatics, and molecular interactions. Prereq: (MATH 234 or 320) and (COMP SCI 301 or 302)  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

BIOCHEM 609 Mathematical Methods for Systems Biology Credits: 3  
Intended to provide a rigorous foundation for mathematical modeling of biological systems. Mathematical techniques include dynamical systems and differential equations. Applications to biological pathways, including understanding of bistability within chemical reaction systems, are emphasized. Prereq: Math 340 or 341; Math 415, or cons inst  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring
BIOCHEM 612 Prokaryotic Molecular Biology Credits: 3
Molecular basis of bacterial physiology and genetics with emphasis on molecular mechanisms; topics include nucleic acid-protein interactions, transcription, translation, replication, recombination, regulation of gene expression. Prereq: Bact 370 or equiv & Biochem 501 or equiv, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BIOCHEM 619 Advanced Nutrition: Intermediary Metabolism of Macronutrients Credits: 3
Discuss metabolic control; gastrointestinal physiology, nutrient absorption; molecular, cellular, organismal aspects of glucose transport, metabolism, regulation; fuel sensing; molecular regulation of fatty acid, lipid metabolism; cellular, organismal aspects of protein metabolism; hormonal control of metabolism; experimental approaches for studying metabolism. Prereq: Grad st; Nutr Sci 510 or Biochem 507 & 508 or Bmolchem 503 (or con reg) or cons inst
Typically Offered: Spring

BIOCHEM 620 Eukaryotic Molecular Biology Credits: 3
This course focuses on the basic molecular mechanisms that regulate DNA, RNA, and protein metabolism in eukaryotic organisms. This course is intended for advanced undergraduates and first year graduate students with a firm knowledge of basic biochemistry. Prereq: BIOCHEM 508
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BIOCHEM 621 Plant Biochemistry Credits: 3
Biochemistry of photosynthesis, respiration, cell walls, and other metabolic and biosynthetic processes in plants. Prereq: Biochem Biochem 501 or 507
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

BIOCHEM 624 Mechanisms of Enzyme Action Credits: 2
Lecture. The relation of structure and kinetics to mechanisms of enzymatic catalysis; studies of specific enzymes and enzyme systems. Prereq: Biochem 501, or 507 & 508, or 601; Chem 561 or 565; or cons inst (not open to Fr)
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BIOCHEM 625 Coenzymes and Cofactors in Enzymology Credits: 2
Course will emphasize the importance of coenzyme and cofactors of enzymes in biochemistry. All aspects of the biochemistry of coenzymes will be covered, including their biosynthesis as far as is known, the biochemical reactions they catalyze, their chemical and spectroscopic properties, and the mechanisms by which they facilitate biochemical reactions. Prereq: Chem 343 & Chem 345 or equiv, Biochem 501 or equiv, Chem 561 or Chem 565 or equiv (may be taken concurrently)
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BIOCHEM 630 Cellular Signal Transduction Mechanisms Credits: 3
Lecture-discussion. Comprehensive coverage of human hormones, growth factors and other mediators; emphasis on hormone action and biosynthesis, cell biology of hormone-producing cells. Prereq: Intro biochem (Biochem 501 or 507 & 508) & cell biology (Biocore 303 or Zool 570 or Path750) or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BIOCHEM 636 Macromolecular Crystallography and Dynamics Credits: 2
Provide knowledge of techniques used to obtain detailed structural and dynamic information about biological macromolecules and survey results. Techniques include x-ray diffraction, electron microscopy and molecular dynamics simulations. Designed for advanced undergraduates and beginning graduate students in the biological sciences. Prereq: Concurrent or prior biochem; calc, & freshman physics or equiv
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BIOCHEM 660 Methods in Biochemistry Credits: 2
Survey of modern techniques in molecular biology and biochemistry. Prereq: 2 sem organic chem, intermed or adv biochem/molec biol, & cons inst
Typically Offered: Fall
BIOCHEM 665 Biophysical Chemistry Credits: 4
Equilibrium thermodynamics, chemical kinetics and transport properties, with emphasis on solution behavior and
application to noncovalent interactions of biological macromolecules in solution. For graduate students interested
in the biological applications of physical chemistry. Prereq: Grad st or cons inst. Stdts must meet prereqs for
Chem 565 & have some prev background in phys chem
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

BIOCHEM 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Sr st & cons inst (for hon Biochem majors only)
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

BIOCHEM 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Biochem 681.
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

BIOCHEM 691 Senior Thesis Credits: 2
Prereq: Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

BIOCHEM 692 Senior Thesis Credits: 2
Prereq: Sr st and cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

BIOCHEM 699 Special Problems Credits: 1 - 4
Provides academic credit for research, library, and/or laboratory work under direct guidance of a faculty member.
Students are responsible for arranging the work and credits with the supervising faculty member. Prereq:
Consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

BIOCHEM 701 Professional Responsibility Credits: 1
Training for the practical aspects of being a scientist. Will cover ethics, peer review, grant writing, science
communication, career alternatives, paper writing, experimental design, research documentation, science funding,
academic-private interface, scientific fraud, and more. Prereq: Admission to the IPiB grad program
Typically Offered: Occasionally

BIOCHEM 703 Topics in Eukaryotic Regulation Credits: 2
Design and interpretation of experiments addressing molecular mechanisms of eukaryotic regulation. For first
year graduate students with firm knowledge of basic biochemistry, molecular biology and genetics. Prereq:
Biochem/Genetics/Microbiology 612 and consent of instructor
Typically Offered: Occasionally

BIOCHEM 704 Chemical Biology Credits: 2
Chemistry and biology of proteins, nucleic acids and carbohydrates; application of organic chemistry to problems
in cell biology, biotechnology, and biomedicine. Prereq: Biochem 501 or equiv, 1 yr org chem & cons inst
Typically Offered: Occasionally

BIOCHEM 710 Exploring Biochemical Function of Macromolecules Credits: 2
Required for first-year IPiB graduate students, this course focuses on topics and approaches applicable to an in-
depth understanding of fundamental biochemical research. Prereq: Graduate standing & consent of instructor
Typically Offered: Spring

BIOCHEM 711 Sequence Analysis Credits: 2
Topics will include overviews of: RNA, DNA and protein structure; mechanisms of genetic change; sequence
generation methods; comparison and alignment algorithms; motif recognition; 2D predictions; phylogeny
calculations; database searching; discriminating coding criteria; phenotypic selection; phylogenetic reconstruction.
Prereq: Grad st
Typically Offered: Occasionally

BIOCHEM 726 Regulation of Gene Expression in Prokaryotes Credits: 3
An intensive examination of a limited number of systems to illustrate the range of molecular mechanism utilized to
control gene expression in bacteria. Prereq: Bact/Genetics/Biochem 612 or cons inst
Typically Offered: Occasionally
BIOCHEM 729 Advanced Topics Credits: 1 - 3
Specialized subjects of current interest. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 799 Practicum in Biochemistry Teaching Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

BIOCHEM 800 Practical Nuclear Magnetic Resonance Theory Credits: 2
Multiple pulse NMR, off-resonance effects, composite and shaped pulses, product operators, coherence transfer, one- and two-dimensional NMR, phase cycling, multiple quantum coherence, and cross relaxation. Prereq: Consent of instructor
Typically Offered: Fall

BIOCHEM 801 Biochemical Applications of Nuclear Magnetic Resonance Credits: 2
Survey of current solution-state nuclear magnetic resonance techniques used in biochemical research; the emphasis will be on how data are acquired and on practical applications. Prereq: None
Typically Offered: Occasionally

BIOCHEM 840 Regulatory Mechanisms in Plant Development Credits: 3
Molecular mechanisms whereby endogenous and environmental regulatory factors control development; emphasis on stimulus perception and primary events in the signal chain leading to modulated gene expression and cellular development; lecture. Prereq: Biochem 501 or 601 & Botany 500 or Biocore 301 & 323
Typically Offered: Occasionally

BIOCHEM 872 Selected Topics in Macromolecular and Biophysical Chemistry Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

BIOCHEM 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

BIOCHEM 901 Seminar-Nutrition and Metabolism (Advanced) Credits: 1
Presentation of original research results; discussion of recent articles in animal metabolism and nutrition. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 905 Seminar-Biomolecular Structure (Advanced) Credits: 1
Presentation from the original literature of recent developments in macromolecular structure and function. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 906 Topics in Modeling for Biochemical Systems Credits: 1
Participants discuss topics relevant to predictive modeling of bioenergy systems. Students present talks and lead brainstorming sessions intended to sharpen their skills at cross-disciplinary communication. Modeling microbes and plants at the genetic, molecular and systems level is emphasized. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 909 Seminar-Enzymology (Advanced) Credits: 1
Research reports, special topics, and reports from recent literature in enzymology and enzyme mechanisms. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 910 Seminar-Molecular Virology (Advanced) Credits: 1
Research reports, special topics, and reports from recent literature in molecular virology. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 911 Seminar-Molecular Mechanisms of Hormone Action (Advanced) Credits: 1
To train students in evaluating published papers in regard to scientific merit and content; provide training in delivering an evaluation of this material to a large group; and to help students and faculty stay abreast of current developments in the area of steroid hormone action. Prereq: Cons inst
Typically Offered: Occasionally
BIOCHEM 912 Seminar-Molecular Mechanisms of Development Credits: 1
Classical and current papers concerning molecular and genetic mechanisms of eukaryotic development will be presented and discussed. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 913 Seminar-RiboGroup (Advanced) Credits: 1
Student-led discussions of RNA-related problems. Prereq: Biochem 603 or equiv, Genetics 466 or equiv; cons inst
Typically Offered: Occasionally

BIOCHEM 914 Seminar-Molecular Biosciences (Advanced) Credits: 1
During the fall semester, molecular biosciences trainees who have not achieved dissertator status will present seminars based primarily on literature related to their projects. During the spring semester, molecular biosciences trainees with dissertator status will present seminars based upon their own research. Prereq: None
Typically Offered: Fall, Spring, Summer

BIOCHEM 915 Computation and Informatics in Biology and Medicine Credits: 1
Participants and outside speakers will discuss current research in computation and informatics in biology and medicine. This seminar is required of all CIBM program trainees. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 916 Cellular Mechanisms of Protein Biogenesis and Trafficking Credits: 1
Recent literature relating to cellular aspects of the regulation of protein biogenesis including protein synthesis, folding, modification, degradation and trafficking, as well as function of molecular chaperones, will be presented and discussed. Prereq: Cons inst
Typically Offered: Occasionally

BIOCHEM 917 Regulation of Gene Expression (Advanced Seminar) Credits: 1
Participants will discuss recent literature in topics related to prokaryotic and eukaryotic gene regulation. These topics include but are not limited to regulation of transcription, translation, and genome organization. Each week, one student participant will lead a critical discussion on a recent publication in the field of gene regulation. The discussion leader will explain the background materials, methodology, experimental results, and broader implications of the publication. All participants will be expected to take an active role in the discussion. Prereq: None
Typically Offered: Fall, Spring

BIOCHEM 918 Single Molecule Approaches to Biology Credits: 1
A combination of recent literature and original research presentations relating to the use of single molecule techniques in biochemistry including fluorescence microscopy, tethered particle motion, patch-clamping, cryo-electron microscopy, optical trapping, magnetic tweezers, and super resolution microscopy. Prereq: Graduate student standing
Typically Offered: Fall

BIOCHEM 932 Biotechnology Training Program Seminar Credits: 1
Biotechnology Training Program trainees will present their research for critical review by audience. Prereq: Grad st. Required of Biotechnology Training Program trainees
Typically Offered: Occasionally

BIOCHEM 945 Seminar-Chemical Biology (Advanced) Credits: 1
Recent published research in chemical biology and related areas. Intended for advanced graduate students, and required of all NIH Chemistry-Biology Interface trainees. Prereq: Consent of instructor
Typically Offered: Occasionally

BIOCHEM 990 Research Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Occasionally

BIOCHEM 999 Special Problems Credits: 1 - 3
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

BIOLOGICAL SYSTEMS ENGINEERING
BSE 1 Cooperative Education Program Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Prereq: So st
Typically Offered: Fall, Spring, Summer

BSE 201 Land Surveying Fundamentals Credits: 1
Basic surveying terminology, equipment, note keeping, computations and data presentation. Emphasis on differential leveling, radial topographic surveying and radial stakeout using a total station survey instrument. Prereq: So st, cons inst
Typically Offered: Fall

BSE 216 Irrigation Systems - Design and Use Credits: 1
Effect of irrigation development on agricultural and environmental characteristics of areas. Introduction to irrigation system component selection and effective utilization of irrigation systems. Prereq: Soil Sci 301
Typically Offered: Spring

BSE 243 Operating and Management Principles of Off-Road Vehicles Credits: 3
Principles of operation of internal combustion engines, fuel metering, cooling, lubrication, clutches, mechanical and hydrostatic transmissions, final drives, hydraulics systems and traction systems. Selection and management of off-road vehicles for agriculture, construction, lawncare and turfgrass industries. Prereq: Math 112 or 114. Not recommended for stdts in engineering
Typically Offered: Spring

BSE 249 Engineering Principles for Biological Systems Credits: 3
Applications of basic engineering principles such as mass and energy balances, psychrometric heat and mass transfer and fluid flow to problems encountered in agricultural and biological systems including grain conditioning, fruit and vegetable storage, food processing, animal housing, and environmental control. Prereq: Math 221
Typically Offered: Spring

BSE 270 Introduction to Computer Aided Design Credits: 3
Introduction to computer aided design (CAD) concepts and techniques, including two- and three-dimensional drawing presentation, methods of graphic communication and design synthesis. Specific topics include parametric solid modeling, part design, survey data and surface construction, orthographic drawings, dimensioning rules and drawing standards, assemblies, and animation. Prereq: None
Typically Offered: Fall, Spring, Summer

BSE 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Jr or So st. Inter-Ag 288
Typically Offered: Spring, Summer

BSE 299 Independent Study Credits: 1 - 3
Prereq: Freshmen, Sophomore or Junior standing & written consent of instructor. Open to Freshmen
Typically Offered: Fall, Spring

BSE 349 Quantitative Techniques for Biological Systems Credits: 3
Principles of how energy and materials are utilized in Cells, organisms and ecosystems. Mass transfer, heat and energy balances applied to cell metabolism, plants, and ecosystems. Quantification of biological processes to allow manipulation for human benefit. Prereq: Math 222, Chem 104 or Chem 109, introductory biology crse, 1 yr of high school physics, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BSE 351 Structural Design for Agricultural Facilities Credits: 3
Introduction to agricultural building codes and loads; structural analysis; wood, concrete and soil properties; wood and reinforced concrete design; construction specifications. Prereq: EMA 201
Typically Offered: Spring

BSE 356 Sustainable Residential Construction Credits: 3
Properties and use of building materials, framing systems, HVAC systems, code requirements, conservation of natural resources in building construction and operation. Prereq: MATH 112, 114, or 171
Typically Offered: Spring
BSE 364 Engineering Properties of Food and Biological Materials Credits: 3
Study of various physical, mechanical, thermal and other properties of food and biological materials. Importance of such property values on the design and operation of various food and bioprocess engineering systems. Prereq: BSE 249 & ME 361 or ChE 310, or cons inst L&S Breadth: Physical Science  L&S Level: Intermediate/Advanced  Typically Offered: Fall

BSE 365 Measurements and Instrumentation for Biological Systems Credits: 3
Principles of instrumentation and measurement systems, analysis of experimental data, electronic components, instrumentation for measuring various parameters of biological systems (temperature, force, flow). Prereq: Declared in Biological Systems Engineering and STAT 224 or 301 or 324 and PHYSICS 202 Typically Offered: Spring

BSE 367 Renewable Energy Systems Credits: 3
Students will learn about the state-of-the-art in renewable energy applications including biomass for heat, electric power and liquid fuels as well as geo-energy sources such as wind, solar, and hydro power. Students will do engineering calculations of power and energy availability of renewable energy sources and learn about requirements for integrating renewable energy sources into production, distribution and end-use systems. Prereq: College algebra, college-level physical science course Typically Offered: Fall, Spring

BSE 372 On-Site Waste Water Treatment and Dispersal Credits: 2
On-site treatment and dispersal of waste water from homes, commercial sources and small communities. Sources, pretreatment units, nutrient removal units, constructed wetlands, surface and soil dispersal systems, recycle and reuse systems, regulations, alternative collection systems. Prereq: Chem 103 Typically Offered: Fall

BSE 375 Special Topics Credits: 1 - 4
Prereq: Cons inst Typically Offered: Occasionally

BSE 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So or Jr or Sr st & cons suprvsg inst & intrshp progm coordinator & advisor L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BSE 400 Study Abroad in Biological Systems Engineering Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program Typically Offered: Fall, Spring, Summer

BSE 409 Career Management for Engineers Credits: 1
Information to aid engineers in career decision making including: personal time and fiscal management, job selection, career development, leadership, legal aspects of engineering, professional ethics. Prereq: Sr st Typically Offered: Fall, Spring

BSE 441 Rheology of Foods and Biomaterials Credits: 3
Fundamentals of rheology and rheological evaluations of food and biomaterials; structure-function relationships. Prereq: Physics 201 or CBE 320 or ME 363 or cons inst Typically Offered: Spring

BSE 460 Biorefining: Energy and Products from Renewable Resources Credits: 3
Concepts, processes, status quo and future direction of biorefining for production of energy (fuels), chemicals and materials from biomass, with emphases on chemical, biological and engineering aspects of the biorefining. Prereq: Chem 109 or equiv; organic chem or equiv Typically Offered: Spring

BSE 461 Food and Bioprocessing Operations Credits: 3
Principles of mechanics, fluid dynamics, and heat and mass transfer as applied to food and bioprocessing operations. Specific focus on unit operations and equipment associated with the products key to Wisconsin industries including pulp and paper, dairy products, ethanol, forage, and grain. Prereq: (BSE 249 or CBE 250) and (CIV ENGR 310 or CBE 320 or ME 363) Typically Offered: Spring
BSE 464 Heat and Mass Transfer in Biological Systems Credits: 3
Introduction to heat and mass transfer fundamentals, including transport mechanisms of conduction, convection, radiation, diffusion and evaporation. Development of governing equations and boundary conditions with application to living systems, controlled environments, water systems, and food processing. Introduction to, and application of, finite-difference and finitevolume methods, including computational fluid dynamics (CFD). Prereq: M E 361, CBE 310 or an equivalent Thermodynamics course; M E 363, CBE 320, CEE 310 or an equivalent Fluid Mechanics course
Typically Offered: Spring

BSE 472 Sediment and Bio-Nutrient Engineering and Management Credits: 3
Hydrologic, biologic and engineering applications in the design and management of sediment and bio-nutrient control systems. Prereq: Jr st in Engr or cons inst
Typically Offered: Fall

BSE 473 Irrigation and Drainage Systems Design Credits: 2
Engineering and management applications of soil-plant-water relationships applied to drainage and irrigation design. Prereq: Jr st in Engr or cons inst
Typically Offered: Fall

BSE 475 Engineering Principles of Agricultural Machinery Credits: 3
Engineering design principles of machines for the production, processing and handling of crops for food, fuel, biomass and fiber. Environmental and biological factors that influence machine design and operation. Economic and capacity analysis of machines and systems. Prereq: Declared in Biological Systems Engineering or Mechanical Engineering and EMA 202 or ME 240 or graduate standing
Typically Offered: Fall

BSE 476 Engineering Principles of Off-Road Vehicles Credits: 3
Engineering design principles of heavy-duty vehicles intended for off-road use: fuels, engine cycles, engine principles and construction, clutches, mechanical and hydrostatic transmissions, final drives, traction systems, traction modeling, dynamic behavior, suspension systems and braking. Prereq: Declared in Biological Systems Engineering or Mechanical Engineering and ME 361, EMA 202 or ME 240; or graduate standing
Typically Offered: Spring

BSE 491 Legal Aspects of Engineering Credits: 3
Legal principles and institutions germane to engineering practice; formation and performance of engineer-client and owner-contractor relationships; preparation of technical specifications; surety bonds and insurance; construction liens; contract administration; construction contract remedies; intellectual property of engineers; engineers' obligations to society and their fellow engineers. Prereq: Sr st or cons inst
Typically Offered: Fall, Spring

BSE 508 Biological Systems Engineering Design Practicum I Credits: 2
Overview of the engineering design process including problem identification, information retrieval, specification writing, development and analysis of alternative solutions, selection methodology, product safety, standardization, scheduling and cost estimating. Students develop design project proposals for real-world design problems. Prereq: Junior standing
Typically Offered: Spring

BSE 509 Biological Systems Engineering Design Practicum II Credits: 3
Individual or team work on a biological systems engineering design project: problem identification, information retrieval, specification writing, development and analysis of alternative solutions, selection methodology. Prereq: Senior standing, declared in Biological Systems Engineering and BSE 508
Typically Offered: Fall

BSE 517 Biology in Engineering Seminar Credits: 1
Current topics at the interface of biology and engineering with special emphasis on the ways in which engineers have contributed to knowledge and advances in biology. Prereq: Jr st in engr & one college-level biol crse
Typically Offered: Fall
BSE 542 Food Engineering Operations Credits: 4
Lectures and experiments in food engineering operations selected from topics such as: thermodynamics, transport processes, biological kinetics and bioreactor design, thermal process calculations, separation processes, process instrumentation and control, process design and economics, and the use of computers. Prereq: Food Sci 440, Sr st, or cons inst. General Education: QR-B, L&S Breadth: Biological Science, L&S Level: Advanced, L&S Credit: Counts for LAS credit. Typically Offered: Spring.

BSE 571 Small Watershed Engineering Credits: 3
Application of engineering principles to small, ungauged watershed analysis. Application of hydrologic and sedimentologic principles to upland watersheds for run-off and sediment control. Prereq: Sr in Engr or Grad st or cons inst. Typically Offered: Spring.

BSE 642 Food and Pharmaceutical Separations Credits: 2 - 3
Basic principles of production-scale separation processes in the food and pharmaceutical industries including gravity sedimentation and centrifugation, extraction, adsorption, chromatography, precipitation, conventional and membrane filtration, crystallization, and drying. Third credit adds group term project, integrating principles with experiments, defined by students' interests. Prereq: Consent of instructor. Typically Offered: Fall.

BSE 671 Topics in Natural Resources Engineering Credits: 1 - 3
Advanced topics in natural resource engineering. Prereq: St or Grad st. Typically Offered: Fall, Spring.

BSE 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Hon candidacy. Typically Offered: Fall, Spring.

BSE 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & BSE 681. Typically Offered: Fall, Spring, Summer.

BSE 691 Senior Thesis Credits: 2
Prereq: Sr st & cons inst. Typically Offered: Fall, Spring.

BSE 692 Senior Thesis Credits: 2
Typically Offered: Occasionally.

BSE 699 Special Problems Credits: 1 - 4
Prereq: Sr st & cons inst. L&S Level: Advanced, L&S Credit: Counts for LAS credit. Typically Offered: Fall, Spring.

BSE 799 Practicum in Agricultural Engineering Teaching Credits: 1 - 3
Prereq: Grad st & cons inst. Typically Offered: Occasionally.

BSE 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst. Typically Offered: Occasionally.

BSE 900 Seminar Credits: 1
Prereq: Cons inst. Typically Offered: Occasionally.

BSE 901 Graduate Research Seminar Credits: 1

BSE 990 Research Credits: 1 - 12
Prereq: Cons inst. Typically Offered: Occasionally.
COMMUNITY & ENVIRONMENTAL SOC

C&E SOC 1 Cooperative Education/Co-op in Community and Environmental Sociology Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in C&E Soc 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

C&E SOC 140 Introduction to Community and Environmental Sociology Credits: 3
Sociological examination of the linkages between the social and biophysical dimensions of the environment. Key topics include community organizing, local food systems, energy transitions, environmental justice, resource dependence, and sustainable development. Gateway to advanced courses in sociology. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

C&E SOC 210 Survey of Sociology Credits: 3 - 4
Introduction to the field of American sociology, its subfields and specialized areas of research, theoretical traditions and research methods. Gateway to advanced courses in sociology. Prereq: Open to Freshmen who have satisfied Comm A requirement. Not open to students who have taken Soc 181 or Soc/C&E 211
General Education: COM B  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

C&E SOC 211 The Sociological Enterprise Credits: 3
Basic principles and definitions of sociology. Readings and discussion of the perspectives of sociology, the individual and society, groups and social process, stratification, organizations and power, demography, and social change. Gateway to advanced courses in sociology. Prereq: Not open to students who have taken Soc 181 or Soc/C&E Soc 210
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

C&E SOC 215 Gender and Work in Rural America Credits: 3
Sociological dimensions of men's and women's work in nonmetropolitan areas of the United States. Examines gender divisions of "work" in its fullest sense: paid work in formal and informal economies, self-employment, and nonmarket work such as housework. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

C&E SOC 222 Food, Culture, and Society Credits: 3
Social and cultural dimensions of the production, preparation, and consumption of food. Uses historical and cross-cultural analytical frameworks. Treats a wide variety of topics including pre-capitalist food systems, hunger, vegetarianism, sustainable agriculture, food and gender, genetic engineering. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

C&E SOC 230 Agriculture and Social Change in Western History Credits: 3
Agricultural practices and social history from prehistoric times to the present. Topics include origins of agriculture, feudalism, agriculture in the Industrial Revolution, farming in America, and the consequences of the Green Revolution. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

C&E SOC 245 Technology and Society Credits: 3
Students are introduced to a wide range of work on technology, the social forces shaping its development, and social impacts of its adoption. Students are encouraged to examine their assumptions about technology and its relationship to society. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring
C&E SOC 248 Environment, Natural Resources, and Society Credits: 3
Introduces the concerns and principles of sociology through examination of human interaction with the natural environment. Places environmental issues such as resource depletion, population growth, food production, environmental regulation, and sustainability in national and global perspectives. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

C&E SOC 260 Latin America: An Introduction Credits: 3 - 4
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

C&E SOC 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

C&E SOC 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

C&E SOC 340 Issues in Food Systems Credits: 3 - 4
With primary emphasis on the U.S., the course covers social, economic and biological dimensions of food systems. Using classroom and community experience, the course combines academic approaches with practitioner knowledge. A community project is required. Prereq: Junior standing or consent of instructor
Typically Offered: Occasionally

C&E SOC 357 Methods of Sociological Inquiry Credits: 3 - 4
Scientific methods in the study of society; procedures for testing sociological theory: problem definition, hypothesis construction, collection and evaluation of data. Practical experience conducting small research projects. Should be taken as early as possible by students considering a major in Sociology. Prior statistics not required. Gateway to advanced courses in sociology. Prereq: Not open to students who have taken Soc 358
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

C&E SOC 360 Statistics for Sociologists I Credits: 4
Presentation of sociological data; descriptive statistics; probability theory and statistical inference; estimation and tests of hypotheses; regression and correlation and the analysis of contingency tables; lectures and lab. Gateway to advanced courses in sociology. It is recommended that students take Soc 357 prior to taking this course. Prereq: Satisfied Quantitative Reasoning (QR) A requirement. Not open to students who have taken Soc 359
General Education: QR-B  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 361 Statistics for Sociologists II Credits: 3
Applied linear regression modeling for social scientists. Bivariate and multiple regression, dummy variables, interactions, nonlinear relationships, indirect effects and omitted variable bias, outliers, heteroskedasticity, and multicollinearity; associated diagnostics and corrections. Use of Stata and/or SAS for dataset creation and analysis. Lectures and lab. Prereq: Sophomore standing. Sophomore standing, and Soc/Community & Environmental Soc 360 or equivalent
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 365 Data Management for Sociological Research Credits: 3 - 4
Understanding the structure of different types of social scientific data, techniques for data evaluation, cleaning, documentation and visual display, merging data from multiple sources, restructuring data for analysis. Prereq: Completion of or concurrent enrollment in SOC/C&E SOC 360, PSYCH 210, PSYCH 280, GEN BUS 303, STAT 301, ECON 310, STAT/MATH 310, GEOG 360, or POLI SCI 551
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

C&E SOC 375 Special Topics Credits: 1 - 4
Specialized topics in community and environmental sociology. In depth investigation into the sociological aspects of a variety of community and environmental issues, such as globalization, climate change, social and environmental sustainability, technology. Prereq: Consent of instructor
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
C&E SOC 380 Contemporary Population Problems for Honors Credits: 3
This course is designed to identify, examine the nature and evaluate the evidence regarding key population problems affecting modern societies in the developed and developing world. The course emphasizes the development of demographic models as a tool to frame, define and investigate these problems. Examples of problems studied include: relations between population growth and environment, population growth and socioeconomic development, population and emergence of new diseases. Prereq: Honors status. Soc 360 or equivalent or consent of instructor
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st and cons supervising inst, advisor and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

C&E SOC 400 Study Abroad in Community and Environmental Sociology Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

C&E SOC 434 People, Wildlife and Landscapes Credits: 3
This course explores the relationship between humans and wildlife amidst diverse landscapes, both historic and contemporary, tropical and temperate. We study how humans shape wild animal populations by modifying physical environments, and by hunting, domesticating and introducing species. Prereq: Geog/Envir St 339
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 475 Classical Sociological Theory Credits: 3
Classical theory; Marx, Durkheim, Weber, and other important classical theorists and schools of thought. Gateway to advanced courses in sociology. Prereq: Introductory Sociology course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

C&E SOC 500 Capstone Experience Credits: 3
A capstone experience involving the application of sociological concepts and methods to concrete social and environmental problems. Students work in teams and may engage problems using service learning, community based research, and interdisciplinary approaches. Prereq: Sr st or cons inst
Typically Offered: Fall, Spring

C&E SOC 532 Health Care Issues for Individuals, Families and Society Credits: 3
Issues related to health and health care delivery in our society. Topics include social, cultural and ethical influences on consumer definitions of health and use of medical care, and on the health care system's responses. Prereq: Intro Soc course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

C&E SOC 533 Public Health in Rural & Urban Communities Credits: 3
Sociological approaches to community, rural, and public health. Examines epidemiological evidence for and policy solutions to health issues that impact vulnerable populations in diverse geographic and social settings. Topics include mental health, environmental and occupational health, preventive care, substance abuse. Prereq: Intro Soc course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

C&E SOC 540 Sociology of International Development, Environment, and Sustainability Credits: 3
Sociological analysis of relationships among economic growth, environmental sustainability and social justice in the developing world. Considers frameworks for understanding poverty, hunger, educational and technological inequality, and the impact of globalization on prospects for socially and ecologically sustainable development. Prereq: Intro Soc course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

C&E SOC 541 Environmental Stewardship and Social Justice Credits: 3
Application of sociological theory and analysis to environmental issues. Course examines the ways in which environmental stewardship and conflict are embedded within broader cultural, social, and political contexts. Prereq: Any of the following: Soc Intro course (SOC 140, 181, 210 or 211), Soc/C&E Soc/Forest and Wildlife Ecology 248, Environmental Studies 112, Environmental Studies 113, Environmental Studies/Geography 139, Environmental Studies/Geography 337, Environmental Studies/Geography 339, or Geography 101
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
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<tr>
<th>Course Number</th>
<th>Course Title</th>
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<tr>
<td>C&amp;E SOC 565</td>
<td>The Ethics of Modern Biotechnology</td>
<td>3 - 4</td>
<td>Study of ethical issues arising from the application of modern biotechnology to microorganisms, crops, and non-human animals. Readings cover moral theory, technology studies, political philosophy, the science used in biotechnology, and current regulations governing its use. Prereq: Jr st &amp; cons inst</td>
<td>L&amp;S Breadth: Humanities L&amp;S Level: Intermediate L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 573</td>
<td>Community Organization and Change</td>
<td>3</td>
<td>Examines theories of community change and different models of community organizing. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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<td>C&amp;E SOC 578</td>
<td>Poverty and Place</td>
<td>3</td>
<td>The allocation of economic and social rewards in the United States; emphasis on persistently poor regions and communities; analysis of selected minority groups and their poverty statuses; poverty programs and their consequences for structural and cultural changes. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)</td>
<td>Ethnic Studies: Yes L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 601</td>
<td>Sociology of Work, Family, and Gender</td>
<td>3</td>
<td>Examines the social issues and forces involved in the intersection of work, family, and gender. Considers how and why men's and women's experiences at work and at home differ, and how experiences in one realm affect experiences in the other. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or Gender &amp; Women's Studies 102</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 610</td>
<td>Knowledge and Society</td>
<td>3</td>
<td>Examines topics related to what has been called the &quot;knowledge society.&quot; Explores various aspects of science and technology as they shape and are shaped by post-industrial societies. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 617</td>
<td>Community Development</td>
<td>3</td>
<td>Social, cultural and personality factors influencing community development, with reference to developing countries as well as contemporary rural communities; consideration of theoretical and operational issues. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 622</td>
<td>Advanced Topics in Critical Sociology</td>
<td>3</td>
<td>Topics include: Marxism and feminism; race and class; alternative theories of history; methodological issues in contemporary Marxism. Prereq: Soc 475</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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<td>C&amp;E SOC 623</td>
<td>Gender, Society, and Politics</td>
<td>3</td>
<td>Examines the relationship between the social structures of gender (e.g., the domestic division of labor, sex-segregated occupational structures, gender ideologies, the social organization of sexuality) and political institutions, political activities, and state policies. Prereq: Junior standing Soc 357 or a Gender &amp; Women's Studies course with a S, Y or Z breadth designation</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 630</td>
<td>Sociology of Developing Societies/Third World</td>
<td>3</td>
<td>Review of problems and prospects of so-called &quot;developing societies.&quot; Includes theory of economic/social development, political economic organizations of &quot;developing&quot; societies, history of colonialism/imperialism, attempts to industrialize and results of those attempts. Prereq: Junior standing</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Intermediate/Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>C&amp;E SOC 645</td>
<td>Modern American Communities</td>
<td>3</td>
<td>Relevance of the concept of community to American society. Review of several basic theories of community and analysis of the nature of community in the broader political and economic context. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)</td>
<td>L&amp;S Breadth: Social Science L&amp;S Level: Advanced L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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C&E SOC 649 Sociology of Work and Employment Credits: 3
Introduction to key themes in the sociology of work and employment. Uses comparative, historical, and theoretical perspectives to analyze contemporary transformations of work and employment in the 'new economy', with particular emphasis on the United States, Western Europe, and Japan. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 357
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 650 Sociology of Agriculture Credits: 3
Introduction to sociology of agriculture in advanced industrial-capitalist societies, including theoretical, historical, and empirical issues of agriculture in the United States. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 652 Sociology of Economic Institutions Credits: 3
Sociological perspectives on the organization of the firm, financial markets, and work, intermediate associations (unions, ethnic economies), the state, and the international economy. Contrast between neoclassical, traditional institutionalist, post-fordist, and neo-fordist perspectives on the nature and evolution of these institutions. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 655 Microfoundations of Economic Sociology Credits: 3
A review and critique of economic theory from a sociological perspective. Reviews central concepts of contemporary microeconomics (e.g., rationality, exchange, strategic interaction, evolution, information), addressing critiques and alternatives offered by economic sociologists, economists, and other behavioral and social scientists. Prereq: Intro Soc (Soc 140, 181, 210, or 211), Soc 357, Soc 360; Senior standing, and consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

C&E SOC 676 Applied Demography: Planning and Policy Credits: 3
Introduction to demographic concepts, methods, data, and trends for application in business, government, planning and other applied areas. Emphasis on U.S. census data and their uses. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 357
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

C&E SOC 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring

C&E SOC 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Rur Soc 681
Typically Offered: Fall, Spring, Summer

C&E SOC 691 Senior Thesis Credits: 2
Typically Offered: Fall, Spring

C&E SOC 692 Senior Thesis Credits: 2
Typically Offered: Fall, Spring

C&E SOC 693 Practicum in Analysis and Research Credits: 3
Practical experience in techniques of social research through assignment to a research project for the semester. Lectures, readings, and discussions of the art and practice of research and the writing of research reports. For undergraduate and graduate students participating in the department's Concentration in Analysis and Research. Prereq: Soc 357, Soc 360, Soc 361, and CAR internship. Open only to students currently enrolled in CAR
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

C&E SOC 699 Special Problems Credits: 1 - 4
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
C&E SOC 708 Societal Risk Management of Technological Hazards Credits: 3
Issues involved in decision-making regarding technological risks and risk management in areas such as nuclear power, hazardous waste disposal, and pollution control. Risk perception and cognitive biases; risk analysis and decision analysis; political issues in risk management; regulatory mechanisms; and risk communication. Selected case studies. Prereq: Stat 311 or Math 431 or Soc 360, IE 516, & Grad st; or cons inst
Typically Offered: Occasionally

C&E SOC 724 Intermediate Political Sociology Credits: 3
Critical examination of theories and research in political sociology. Topics include: power and interests, state-formation, social movements, class and political behavior, revolutions, ideology, and states and social policy. Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 730 Intermediate Social Psychology: The Individual and Society Credits: 3
Major social psychological theories and research that focus on the individual in social context. Topics include: perspectives on socialization, the self, social perception and attribution, attitudes, language and nonverbal communication, and attraction and relationships. Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 731 Intermediate Social Psychology: Group and Collective Processes Credits: 3
Major social psychological theories and research that focus on interpersonal relations and group processes. Topics include: social interaction (influence, self-presentation, altruism, agression), groups (cohesion, conformity, leadership, problem-solving, decision making), intergroup relations (conflict, stereotypes), n-person games (dilemmas, coalition formation). Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 748 Environmental Sociology Credits: 3
Interaction between societies and their environments. Includes human ecology, environmental attitudes and individual actions, the social organization of environmental protection and exploitation and the effects of science, technology, and development. Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 749 Social Policy and Management of National Parks and Protected Areas Credits: 3
Explores the relationship of social policy to the formation and management of U.S. National Parks in the past, present and future. Implications of social policy for park systems and preserves throughout the world are addressed. Prereq: Grad st or cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

C&E SOC 750 Research Methods in Sociology Credits: 3
Application of scientific methods to the analysis of social phenomena; methodological orientations in sociology; types of research procedure: nature of sociological variables; lectures and lab. Prereq: Grad st, Soc 357 and 362 or equiv
Typically Offered: Occasionally

C&E SOC 755 Methods of Qualitative Research Credits: 3
Introduces qualitative, or ethnographic, research methods, emphasizing those suitable for educational and other organizational settings. Considers strengths and limitations of qualitative approaches in relation to varied research problems. Explores methodological procedures from entry into the field through writing. Prereq: Cons inst
Typically Offered: Occasionally

C&E SOC 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring

C&E SOC 904 Sociological Perspectives on Gender Credits: 3
Advanced topics in the analysis of gender relations in society. Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 913 Seminar-Social Change Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally
C&E SOC 922 Seminar-Race and Ethnic Relations Credits: 3
Theoretical, methodological, and current research problems. Prereq: Soc 134 or 646 & cons inst
Typically Offered: Occasionally

C&E SOC 923 Seminar-Social Stratification Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 925 Seminar: Socio-Economic Change in Underdeveloped Areas Credits: 2 - 3
Social and economic factors relating to stability, growth, and change in the non-Western areas of the contemporary world. Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 929 Seminar: Class Analysis and Historical Change Credits: 3
Selected topics in Marxist theory and research. Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 940 Seminar-Sociology of Economic Change Credits: 3
Theoretical and technical problems in research concerning organizational and socio-psychological aspects of changes in large scale social systems. Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 945 Seminar-Rural Sociology Credits: 3
Theory and research in alternate semesters in rural aspects of population, stratification, social change, and groups and institutions. Prereq: Grad st and cons inst
Typically Offered: Occasionally

C&E SOC 948 Seminar: Environmental Sociology Credits: 3
Examines topics such as theories of environment and society, the treadmill of production, environmental movements, political ecology, environmental justice, consumption, ecological modernization, sustainability, environmental risk, and the sociology of environmental science. Prereq: Cons inst
Typically Offered: Occasionally

C&E SOC 960 Seminar-Current Methodological Issues in Social Psychology Credits: 3
Alternative research designs and processes, measurement, and analytical techniques in social psychology; experience in developing and utilizing research plans and techniques. Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 961 Seminar-Advanced Social Psychology Credits: 3
A selected research or theoretical area. Topic varies. Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 965 Seminar-Recent Developments in Social Psychology Credits: 3
Current literature, emphasis on recent journal articles. Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 971 Seminar-Topics in Demography and Ecology Credits: 3
Content varies. Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 977 Seminar-Human Ecology Credits: 3
Review of ecological theory and research; critical assessment of the ecological complex (population, organization, environment, and technology); problems of measurement. Prereq: Grad st and cons inst
Typically Offered: Occasionally

C&E SOC 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

C&E SOC 985 Research: Community and Environmental Sociology Credits: 1 - 3
Critical analysis of recent theoretical and methodological issues through presentations of research in progress by faculty, graduate students, and visiting scholars. Prereq: Grad st & cons inst
Typically Offered: Fall, Spring
C&E SOC 987 Research: Race and Ethnic Studies Credits: 1 - 3
Analysis of recent research and theory, based on reviews of literature and presentations of their own work by faculty, graduate students, and visiting scholars. Prereq: Cons inst
Typically Offered: Occasionally

C&E SOC 990 Research Credits: 1 - 12
Prereq: Grad st & cons advisor
Typically Offered: Occasionally

C&E SOC 993 Research: Sociology of Economic Change Trainees Credits: 1 - 3
Presentations of research in progress concerning social and economic change in developing countries. Prereq: Grad st
Typically Offered: Occasionally

C&E SOC 995 Research: Methodology Trainees Credits: 1 - 3
Prereq: Method trainee or cons inst
Typically Offered: Occasionally

C&E SOC 997 Research: Demography and Ecology Trainees Credits: 1 - 3
Prereq: Demography & ecology trainee or cons inst
Typically Offered: Occasionally

C&E SOC 999 Reading and Research Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

DAIRY SCIENCE

DY SCI 1 Cooperative Education/Co-op in Dairy Science Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Dairy Sci 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

DY SCI 101 Introduction to Animal Sciences Credits: 4
Anatomy physiology, nutrition, genetics, reproduction, marketing, meats and management of dairy and beef cattle, swine, sheep, poultry and horses; lectures, laboratories and discussion. Field trips. Prereq: Open to Freshmen
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

DY SCI 205 Dairy Cattle Selection Credits: 2
Dairy cattle evaluation and selection, including: linear type appraisal, dairy cattle judging, mating programs, breed comparisons, cattle marketing plans, and national genetic improvement programs. Prereq: Dy Sci/An Sci 101. Open to Fr
Typically Offered: Spring

DY SCI 233 Dairy Herd Management I Credits: 3
Overview of practical dairy herd management with components of reproduction, nutrition, milk quality, raising dairy replacements, facilities and records. Laboratories emphasize practical applications, analyses of alternatives and decision making. Includes farm visits and analysis. Prereq: Dy Sci/An Sci 101 or consent of instructor
Typically Offered: Spring

DY SCI 234 Dairy Herd Management II Credits: 3
The second of a two course sequence designed as an overview of practical dairy herd management with components of animal welfare and handling, health, calf and heifer rearing, facilities and production economics. Laboratories emphasize practical applications, investigation of alternatives and decision making. Includes farm visits and a hands-on transition cow project for analysis. Prereq: Dairy Science/Animal Science 101 or consent of instructor, successful completion of Dairy Science 233
Typically Offered: Spring
DY SCI 272 Pre-Capstone Seminar Credits: 1
In this course, students develop individualized four-year course plans, learn about internships and job opportunities, and discuss leadership development opportunities. Students learn about, and prepare for, active and independent learning from juniors and seniors who have successfully completed independent learning projects including internships, senior seminars and other "capstone" experiences. Intended for prospective or declared Dairy Science majors in their first year or who have not completed Dy Sci 399 - Internship Prereq: None
Typically Offered: Fall

DY SCI 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

DY SCI 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

DY SCI 305 Lactation Physiology Credits: 3
The course focuses on lactation physiology across mammalian species. Structure and function of mammary glands; hormonal control of mammary development and lactation; cellular mechanisms of milk synthesis; the chemistry of milk synthesis; mastitis and other abnormalities of mammary functions. This course has a laboratory component. Prereq: Zoology 101 or Biology 151&152; and BmolChem 314 or Biochem 501 or concurrent enrollment
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

DY SCI 311 Comparative Animal Nutrition Credits: 3
Nutrients and their source, assimilation, function and requirement. Prereq: BmolChem 314 or Chem 341 or Chem 343 or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

DY SCI 313 Animal Feeds and Diet Formulation Credits: 1
Designed as a companion course for Dairy Science 311 (comparative animal nutrition) with emphasis on quantitative and practical aspects of animal feeds and diet formulation. Prereq: Math 112, Dy Sci/An Sci 101, or consent of instructor; concurrent registration in Dy Sci/An Sci/Nutr Sci 311 recommended
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

DY SCI 320 Animal Health and Disease Management Credits: 3
Principal causes and identification of animal diseases, common diseases of farm animals, zoonoses and public health, disease prevention and management including biosecurity measures and host immune responses. Prereq: Zoology 101/102, Biology 152, Biocore or cons inst
Typically Offered: Spring

DY SCI 361 Introduction to Animal and Veterinary Genetics Credits: 2
The molecular basis for inheritance of monogenic and polygenic traits related to animal disease and production. An introduction to the principles of improving animal health and performance by selection and mating systems in companion animals, horses, livestock, and poultry. Prereq: Genetics 160 or 466 or con reg & course in statistics
Typically Offered: Spring

DY SCI 362 Veterinary Genetics Credits: 2
The genetic basis for predisposition to disease or resistance to disease in livestock and companion animal species. Genetic defects, their discovery, diagnosis and treatment. Prereq: Dy Sci/An Sci 361; or Genetics 160 or 466 & Zool/Bot 152
Typically Offered: Spring

DY SCI 363 Principles of Animal Breeding Credits: 2
Application of the principles of quantitative genetics to the improvement of livestock and poultry; breeding value estimation and selection techniques; effects of inbreeding and hybrid vigor; crossbreeding systems. Prereq: Dy Sci/An Sci 361
Typically Offered: Spring
DY SCI 370 Livestock Production and Health in Agricultural Development Credits: 3
Physical, biological and social nature of animal agriculture systems and their improvement in developing
countries; analysis of the state of livestock research and development in the developing countries and the world
role of U.S. animal agriculture. Prereq: An Sci/Dy Sci 101 or cons inst
Typically Offered: Fall

DY SCI 373 Animal Physiology Credits: 3
Students will develop an understanding of physiological processes that regulate the body, learn the anatomy and
function of different physiological systems, describe interactions between organ systems, study regulation of an
organ system from the molecular to whole animal level, and identify differences between species in the same
systems. Prereq: Biology/Zoology 101 or Biology/Zoology/Botany 151 and Biology/Zoology/Botany 152
Typically Offered: Spring

DY SCI 375 Special Topics Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

DY SCI 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st & cons supervising inst, advisor, and internship coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

DY SCI 400 Study Abroad in Dairy Science Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to
existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

DY SCI 414 Ruminant Nutrition Credits: 2
Integrates basic nutrition concepts and ration balancing skills by teaching students to balance and troubleshoot
rations for various domesticated ruminants. An Sci/Dy Sci 313 is recommended. Prereq: AN SCI/DY SCI 311
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

DY SCI 434 Reproductive Physiology Credits: 3
Principles of reproductive physiology, improvement of fertility, and artificial insemination. Prereq: Jr st, An
Sci/Dy Sci 101, or Zool 101 & 102; Zool 151 & 152 recommended
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

DY SCI 468 Managing the Environmental Impacts of Livestock Operations Credits: 2
Introduces nonpoint pollution policies and regulations and environmental losses impacting air and water quality.
Discuss management practices that influence the cycling and balance of nitrogen and phosphorus across a farm
and its components (livestock, crop and soil). Prereq: Jr st
Typically Offered: Spring

DY SCI 472 Animal Agriculture and Global Sustainable Development Credits: 1
This course examines issues related to global agriculture and healthy sustainable development. Using a regional
approach and focusing on crops and livestock case studies, students will learn the interdependence between US
agriculture and agriculture in emerging economies. Some topics covered include population and food,
immigration, the environment; crop and livestock agriculture; global trade; sustainability; food security, the role of
women in agriculture, and the role of dairy products in a healthy diet. Prereq: None
Typically Offered: Fall

DY SCI 473 International Field Study in Animal Agriculture and Sustainable Development Credits: 2
This course is the field study component to DY SCI 472, which examines issues related to global agriculture and
healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies,
students will learn the interdependence between US agriculture and agriculture in emerging economies. Some
topics covered include population and food, immigration, the environment; crop and livestock agriculture; global
trade; sustainability; and the role of women in agriculture and the role of dairy products in a healthy diet. Prereq:
DY SCI 472
Typically Offered: Spring
DY SCI 534 Reproductive Management of Dairy Cattle Credits: 3
This course is designed to provide students with the technical knowledge and practical skills to design and execute an effective reproductive management program for dairy cattle. Each week students will participate in lectures and discussions of the key reproductive physiology and practical research results that underlie reproductive management programs. Students will also participate in hands-on laboratories twice per week in which they will learn, practice, and demonstrate practical reproductive management techniques including: Semen handling, artificial insemination, and ultrasound of ovaries and uterus. Prereq: AN SCI/DY SCI 434
Typically Offered: Spring

DY SCI 535 Dairy Farm Management Practicum Credits: 3
Principles of nutrition, breeding, reproduction, and management at the farm level are integrated. Students will develop skills in decision making, information gathering, problem solving, and interpersonal communication through fieldtrips to working commercial dairy operations. Prereq: Dy Sci 233, 434, 361
Typically Offered: Spring

DY SCI 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors candidacy
Typically Offered: Fall, Spring, Summer

DY SCI 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Dy Sci 681
Typically Offered: Fall, Spring, Summer

DY SCI 690 Proseminar Credits: 1
Critical review, evaluation and presentation of current research; 736lication of research to practical problems; career preparation, job application procedures. Required for Dy Sci majors. Prereq: Sr st
Typically Offered: Fall

DY SCI 699 Special Problems Credits: 1 - 3
Prereq: Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

DY SCI 799 Practicum in Dairy Science Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: Occasionally

DY SCI 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

DY SCI 900 Seminar Credits: 1
Comprehensive reviews of research aimed at broadening understanding of dairy science. Prereq: Dairy Science 690
Typically Offered: Occasionally

DY SCI 931 Seminar in Animal Nutrition Credits: 1
Discussion of literature that has a bearing on animal nutrition. Students are to survey the literature and present a seminar. Prereq: Grad st & cons inst
Typically Offered: Occasionally

DY SCI 950 Seminar in Animal Genomics Credits: 1
Study of current literature in gene mapping, study designs, and application of markers in genetic improvement programs. Prereq: Grad st & cons inst
Typically Offered: Occasionally

DY SCI 951 Seminar in Animal Breeding Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally
ENTOMOLOGY

ENTOM 1 Cooperative Education/Co-op in Entomology Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Entom 399. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ENTOM 201 Insects and Human Culture-a Survey Course in Entomology Credits: 3
Importance of insects in man's environment, emphasizing beneficial insects, disease carriers, and agricultural pests that interfere with man's food supply. Environmental problems due to insect control agents. Prereq: Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 203 Introduction to Global Health Credits: 3
Introduces students to global health concepts through multidisciplinary speakers dedicated to improving health through their unique training. It targets students with an interest in public health and those who wish to learn how their field impacts their global issues. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

ENTOM 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & prior written consent of instructor
Typically Offered: Fall, Spring, Summer

ENTOM 302 Introduction to Entomology Credits: 4
Principles including morphology and classification; a general collection of insects required of each student. Prereq: An elem course in zoology
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENTOM 321 Physiology of Insects Credits: 3
Anatomy, histology and basic physiology of organ systems in insects. Prereq: Entom 302 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 331 Taxonomy of Mature Insects Credits: 4
Principles of taxonomy, identification and taxonomic morphology of adult insects. Prereq: Entomol/Zool 302
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 342 Insect Ecology Credits: 3
Ecology of insects as individuals, populations, and components of communities and ecosystems. Emphasis on interactions of insects with their biotic and abiotic environment. Prereq: Entom/Zool 302 or course in zool; Math 112 or equiv
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 350 Parasitology Credits: 3
The biology of water-borne, food-borne, soil-borne and vector-borne parasites of animals including humans. Parasites are explored in the context of transmission, associated disease, diagnosis and treatment options, and environmental, cultural and socioeconomic drivers of disease epidemiology. Prereq: BIOLOGY/ZOOLOGY 101 and 102, or BIOLOGY/BOTANY/ZOOLOGY 152 or ZOOLOGY 153, or BIOCORE 381
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENTOM 351 Principles of Economic Entomology Credits: 3
Major economic insects: identification, life histories, bionomics, distribution, control; procedures in fundamental and practical inquiry. Prereq: Intro course in zoology
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ENTOM 354 Diagnosing and Monitoring Pest and Nutrient Status of Field Crops  Credits: 1
This course is designed to provide students with information necessary to diagnosis and monitor corn, soybean, alfalfa and wheat for pests (insects, weeds, diseases) and nutrient deficiency symptoms including perspectives from Agronomy, Entomology, Horticulture, Plant Pathology and Soil Science. Proper soil and pest sampling information will be provided as will proper crop staging techniques which are essential for pest and nutrient management.  Prereq: None
Typically Offered: Spring

ENTOM 371 Medical Entomology  Credits: 3
Arthropods of medical and veterinary importance, how they affect their hosts and transmit diseases.  Prereq: Intro course in zool or vet sci
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 375 Special Topics  Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Occasionally

ENTOM 399 Coordinative Internship/Cooperative Education  Credits: 1 - 8
Prereq: So, Jr or Sr st & cons supervising inst, advisor, and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENTOM 400 Study Abroad in Entomology  Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses.  Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

ENTOM 432 Taxonomy and Bionomics of Immature Insects  Credits: 4
Lectures on anatomy/morphology, taxonomy, bionomics of immature insects (ordinal and familial levels). Ametabola, Paleoptera, Plecoptera, Trichoptera not covered in lecture (will be examined in lab). Labs emphasize utilizing taxonomix keys for identification (order and family). Required field trips and collection.  Prereq:  Entom 302 or equiv, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENTOM 450 Basic and Applied Insect Ecology  Credits: 3
Basic and Applied Insect Ecology is advanced course in population and community ecology, plant-insect interactions, insect biodiversity and biogeography, and applied ecology. The course will weave basic ecological theory and principles with their application to entomological problems such as conservation, biological control, agriculture, and insect-vectored diseases of plants and humans. We will use the current entomological and ecological scientific literature and draw on examples from a broad range of natural and managed ecosystems. As the semester progresses, the scope of the lectures and literature will broaden from pairwise species interactions (e.g., a predator and its prey) to the ent
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 451 Basic and Applied Insect Ecology Laboratory  Credits: 1
Basic and Applied Insect Ecology Laboratory/Discussion is the companion course for the lecture-based Basic and Applied Insect Ecology (Entomology 450). This course will include hands-on experiences such as labs, field trips, computer exercises, and discussions based on readings in the primary literature to enhance and delve into more details on materials introduced in the course lectures.  Prereq:  Concurrent or previous enrollment in Entomology 450, consent of instructor for undergraduates
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 468 Studies in Field Entomology  Credits: 3
Period of intensive field work (2 weeks) outside Madison area. Concentration on structural, behavioral adaptations of insects to diverse habitats; dynamic relations between insects and plants, other animals and other insects. Student field project, literature review presentation required.  Prereq:  Entom 302, Junior standing, and consent of instructor. (Recommended ecology course & Entom 331 or 432)
Typically Offered: Summer
ENTOM 473 Plant-Insect Interactions Credits: 3
Multiple ways in which arthropods exploit plants, plant traits that deter or augment insects, environmental mediation of these interactions, effects on population dynamics, community ecology and co-evolution, and implications to natural resource management, environmental quality, and sustainable development. Prereq: One of the following: Bot/For/Zoo 460, Ent/Pl Path/For 500, PI Path/Bot 505, Forestry 550, or Entom 342
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENTOM 500 Insects in Forest Ecosystem Function and Management Credits: 2
Roles of insects in the functioning of healthy forest ecosystems, tactics for addressing challenges they pose to sustainable natural resource management, and emerging issues such as biological invasions, habitat alteration, and climate change that influence interactions among insects, their microbial associates, forests, and humans. Prereq: Botany 151 & 152 or equivalent
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 505 Plant-Microbe Interactions: Molecular and Ecological Aspects Credits: 3
Molecular and ecological aspects of the interactions between plants and microorganisms. This course explores many of the themes, from genetic to integrative, of modern biology, and illustrates how study of plant-microbe interactions contributes to understanding of fundamental plant science. Prereq: An upper level crse in microbiol (e.g. Bact 303); biochem (e.g. Biochem 501); & genetics (e.g. Genetics 466) or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENTOM 530 Insect Behavior Credits: 3
Comparative behavior of insects. Function and evolution. Prereq: Entom 302 or equiv; Zool 330 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENTOM 540 Theoretical Ecology Credits: 3
Introduction to theoretical ecology, including hands-on experience in computer modeling. For students with ecology background; does not require a strong math background. 3-credit option requires project and consent of instructor. Prereq: 1 year calculus, Zoo/Bot 260, Zoo/Bot/For 460 or equiv, & Jr st
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENTOM 601 Seminar in Methods of Scientific Oral Presentations Credits: 1
Training for the presentation of short talks. Prereq: Senior standing
Typically Offered: Spring

ENTOM 606 Colloquium in Environmental Toxicology Credits: 1
Current topics in molecular and environmental toxicology and problems related to biologically active substances in the environment. Topics vary each semester. Lectures are by resident and visiting professors and other researchers.. Prereq: Biology/Zoology 101, Biology/Botany 130, or equivalent
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENTOM 624 Molecular Ecology Credits: 3
Basic principles of molecular ecology. Lecture topics include population genetics, molecular phylogenetics, rates and patterns of evolution, genome evolution, and molecular ecology. Prereq: BOTANY/GENETICS/ZOOLOGY 466, GENETICS 467 or BIOCORE 383 or graduate student standing
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENTOM 632 Ecotoxicology: The Chemical Players Credits: 1
Introduction to natural and man-made toxins/toxicants, their distribution, transport, and fate in the environment. Includes lectures, current research presentations, and discussions. Prereq: 2 sem intro biol & 1 sem organic chem, or cons inst
Typically Offered: Occasionally

ENTOM 633 Ecotoxicology: Impacts on Individuals Credits: 1
Addresses absorption, biotransformation, elimination of toxins in a wide variety of taxa (plants, invertebrates, vertebrates), and includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 632, or 2 sem intro biol & M&Envtox 631, or cons inst
Typically Offered: Occasionally
ENTOM 634 Ecotoxicology: Impacts on Populations, Communities and Ecosystems Credits: 1
Focuses on the impact of toxicants on populations, communities, ecosystems, and includes risk evaluation.
Includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 633, or M&EnvTox 625, 626 & 631, or cons inst
Typically Offered: Occasionally

ENTOM 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors candidacy
Typically Offered: Fall, Spring, Summer

ENTOM 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Entom 681
Typically Offered: Fall, Spring, Summer

ENTOM 691 Senior Thesis Credits: 2
Prereq: Senior standing & consent of instructor
Typically Offered: Fall, Spring, Summer

ENTOM 699 Special Problems Credits: 1 - 4
Prereq: Cons inst & Sr st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENTOM 701 Advanced Taxonomy Credits: 3
Prereq: Entom 331 and cons inst
Typically Offered: Occasionally

ENTOM 711 Multivariate Analysis of Ecological and Community Data Credits: 2
This course will examine some common methods of multivariate data analysis in ecology and environmental science. Often called "community data analysis," this class will cover methods for the analysis of complex, multidimensional datasets that are collected in the study of plant, invertebrate, fish, and bird communities. We will also address the concurrent analysis of the environmental factors that may drive community distributions. All of this provides the basis for predictive modeling of distributions across landscapes. General methods we will cover include ordination (PCA, DCA, NMDS, CCA), clustering (or classification), and other comparative analyses of data matrices (ANOSIM, Mantel tests)
Typically Offered: Fall

ENTOM 799 Practicum in Entomology Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ENTOM 801 Colloquium Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

ENTOM 820 Foundations of Evolution Credits: 2
Through reading and analysis of the primary literature, this course will explore some of the most important themes and debates that have permeated evolutionary biology over the last 50 years. Students will read key papers related to each controversial topic, will debate the pros and cons of competing viewpoints, and will reflect on the relevance of the issues to contemporary evolutionary biology. Students will also write a paper that analyzes one topic in more detail. This course is intended for graduate students who plan to specialize in evolutionary biology, broadly construed. Prereq: Graduate or professional standing
Typically Offered: Fall

ENTOM 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ENTOM 901 Seminar in Organismal Entomology Credits: 1
Presentations from the original literature on developments in natural products chemistry, biochemistry, physiology, developmental biology and/or ultrastructure of insects. Prereq: Grad st
Typically Offered: Occasionally
ENTOM 903 Seminar in Evolutionary Entomology Credits: 1
Presentation from the original literature on developments in the evolution, ecology, behavior and/or systematics of insects. Prereq: Grad st
Typically Offered: Occasionally

ENTOM 905 Seminar in Applied Entomology Credits: 1
Presentations from the original literature on developments in integrated pest management, insect-plant interactions medical entomology, and/or insect pathology. Prereq: Grad st
Typically Offered: Occasionally

ENTOM 950 Interdisciplinary Seminar in Animal Behavior Credits: 1
Research methods in animal behavior studies in many disciplines. Prereq: Grad st
Typically Offered: Occasionally

ENTOM 953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

ENTOM 990 Graduate Research and Thesis Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Occasionally

FOOD SCIENCE

FOOD SCI 1 Cooperative Education/Co-op in Food Science Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Food Sci 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

FOOD SCI 120 Science of Food Credits: 3
Lecture. Relationship between food, additives, processing and health. How foods are processed. Current food controversies. Prereq: Open to Freshmen
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Not Applicable

FOOD SCI 201 Discovering Food Science Credits: 1
Introduction to the food industry for incoming (freshmen and transfers) Food Science majors. Provides a brief introduction to the different areas of study and career opportunities within the food industry. Prereq: Fr or So st or cons inst
Typically Offered: Spring

FOOD SCI 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Spring, Summer

FOOD SCI 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

FOOD SCI 301 Introduction to the Science and Technology of Food Credits: 3
Introduction to the science and the technology of food manufacture. Course covers the basic chemical, physical and microbiological properties of food and manipulation of these properties in the manufacture of food products. Prereq: Declared major in Food Science, Nutritional Sciences (Dietetics, International Agriculture and Natural Resources) or Biological Systems Engineering; and algebra, 1 semester of general chemistry, and 1 semester biology, or concurrent registration, or consent of instructor
Typically Offered: Fall, Spring
FOOD SCI 305 Introduction to Meat Science and Technology Credits: 4
Application of biological, technological, and economical principles to muscle and related tissue utilized for food. Prereq: Zool 101 & 102, or Zool 151 & 152 (recommended); Chem 103
Typically Offered: Spring

FOOD SCI 321 Food Laws and Regulations Credits: 1
Food laws and regulations, regulatory and commerical grading standards used in the food industry. Prereq: Jr st or cons inst
Typically Offered: Spring

FOOD SCI 324 Food Microbiology Laboratory Credits: 2
Lab exercises dealing with food preservation, spoilage, and food poisoning. Isolation, identification and quantification of specific microbes occurring in foods, and food fermentations by bacteria and yeast. Prereq: Bact 102 or 304; Bact/Food Sci 325 or con reg
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

FOOD SCI 325 Food Microbiology Credits: 3
Principles of food preservation, epidemiology of foodborne illness, agents of foodborne illness, food fermentations and biotechnology. Prereq: Bact 101 or 303 or MM&I 301 or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

FOOD SCI 375 Special Topics Credits: 1 - 3
Subjects of current interest to undergraduates. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

FOOD SCI 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So or Jr or Sr st & cons supervising inst, advisor & internship coordinator
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

FOOD SCI 400 Study Abroad in Food Science Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

FOOD SCI 410 Food Chemistry Credits: 3
Nature and chemical behavior of food constituents including proteins, lipids, carbohydrates, water, and enzymes. Prereq: Food Sci 301 (BC or better); & Chem 343 & concurrent registration in Biochem 501 or consent of instructor or ABE or PAE degree classification & Chem 343
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

FOOD SCI 412 Food Analysis Credits: 4
Lecture and lab. Application of quantitative techniques to the determination of composition and quality of food products. Prereq: Stat 301 or 371 (or equivalent) & Food Sci 410, or consent of instructor
Typically Offered: Fall

FOOD SCI 432 Principles of Food Preservation Credits: 3
Fundamentals of food preservation methods: post-harvest, thermal processing, refrigeration and freezing, control of water activity, chemical preservation, nonthermal methods and control of food packaging. Prereq: FOOD SCI/MICROBIO 325, FOOD SCI 410 and 440; or declared in Biological Systems Engineering and FOOD SCI/MICROBIO 325 and FOOD SCI 410
Typically Offered: Fall

FOOD SCI 437 Food Service Operations Credits: 3
Principles and methods of technical operations in quantity foodservice systems; menu planning, purchasing, production, service and cost control. Prereq: Students in the dietetics program be ADI approved as a new prerequisite for this course and have taken Food Science 301
Typically Offered: Fall

FOOD SCI 438 Food Service Operations Lab Credits: 1
Procurement and production methods used to control costs in foodservice operations; field trips. Prereq: Con reg Food Sci 437
Typically Offered: Fall
FOOD SCI 440 Principles of Food Engineering Credits: 3
Lecture. Application of engineering principles in the analysis of food process operations: properties of gases and vapors, psychrometrics, material and energy balances, fluid flow, heat transfer, microwave heating, mass transfer, packaging film permeability, dehydration. Prereq: Food Sci 301 (BC or better); & Math 211 or Math 221 (or equivalent); & Physics 103 (or equivalent); or consent of instructor
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOOD SCI 441 Rheology of Foods and Biomaterials Credits: 3
Fundamentals of rheology and rheological evaluations of food and biomaterials; structure-function relationships. Prereq: Physics 201 or CBE 320 or ME 363 or cons inst
Typically Offered: Spring

FOOD SCI 464 Statistics for Food Industry Quality Control Credits: 3
Application of statistics for the purpose of monitoring and controlling food industry production. Applications of discrete and continuous distributions as tools for inferring production quality and efficiency. Topics include hypothesis formation and testing, confidence intervals, and graphics for presentation. Prereq: Stat 201 or equiv
Typically Offered: Spring

FOOD SCI 472 Animal Agriculture and Global Sustainable Development Credits: 1
This course examines issues related to global agriculture and healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies, students will learn the interdependence between US agriculture and agriculture in emerging economies. Some topics covered include population and food, immigration, the environment; crop and livestock agriculture; global trade; sustainability; food security, the role of women in agriculture, and the role of dairy products in a healthy diet. Prereq: None
Typically Offered: Fall

FOOD SCI 473 International Field Study in Animal Agriculture and Sustainable Development Credits: 2
This course is the field study component to DY SCI 472, which examines issues related to global agriculture and healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies, students will learn the interdependence between US agriculture and agriculture in emerging economies. Some topics covered include population and food, immigration, the environment; crop and livestock agriculture; global trade; sustainability; and the role of women in agriculture and the role of dairy products in a healthy diet. Prereq: DY SCI 472
Typically Offered: Spring

FOOD SCI 511 Chemistry and Technology of Dairy Products Credits: 3
Chemistry of milk components (i.e. protein, lipids, carbohydrate, salts, enzymes) with an emphasis on chemical and physical changes that occur during the manufacture of a range of milk products (i.e. ice cream, butter, cheese). Dairy technology and microbiological quality. Prereq: Food Sci 410, or consent of instructor
Typically Offered: Spring

FOOD SCI 512 Principles of Food Chemistry-Lab Credits: 2
Lectures and demonstrations on methodology in food chemistry; experiments on the chemistry of organic constituents; lipids, proteins, carbohydrates and other organic constituents of foods. Prereq: Food Sci 410 or consent of instructor
Typically Offered: Fall

FOOD SCI 514 Integrated Food Functionality Credits: 4
Molecular basis of food functional properties; impact of ingredients and processing on functional properties (texture, flavor, nutrition and structure); design of new or reformulating foods to meet specific quality expectations. Prereq: Food Sci 602 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FOOD SCI 515 Commercial Meat Processing Credits: 2
Principles and procedures in the commercial manufacture of processed meat products; sausage manufacturing, curing, smoking, freezing and packaging. Prereq: An Sci 305 or Food Sci 410 or cons inst. Zool 101 & 102, or Zool 151 & 152 (recommended); Chem 103
Typically Offered: Fall
FOOD SCI 532 Integrated Food Manufacturing Credits: 4
Procedures used to process and preserve foods on a commercial basis, with emphasis on concentration, dehydration and fractionation process, plant sanitation/HACCP/GMP, statistical process control, and environmental impacts. Prereq: Declared in Food Science or Biological Systems Engineering; and FOOD SCI 432
Typically Offered: Spring

FOOD SCI 535 Confectionery Science and Technology Credits: 3
Through a combination of on-line lectures, classroom activities, evaluation of commercial samples and discovery-based labs, the science and technology of confections from hard candy to chocolate will be covered. Prereq: Food Sci 410, Food Sci 432, or cons inst
Typically Offered: Fall

FOOD SCI 537 Organization and Management of Food and Nutrition Services Credits: 3
Lecture. Principles of organization; the management process in foodservice systems; allocation of resources; budget development, personnel supervision and evaluation. Prereq: Food Sci 437 & MHR 300
Typically Offered: Spring

FOOD SCI 542 Food Engineering Operations Credits: 4
Lectures and experiments in food engineering operations selected from topics such as: thermodynamics, transport processes, biological kinetics and bioreactor design, thermal process calculations, separation processes, process instrumentation and control, process design and economics, and the use of computers. Prereq.: Food Sci 440, Sr st, or cons inst
Typically Offered: Spring

FOOD SCI 550 Fermented Foods and Beverages Credits: 2
Lecture. Chemistry, microbiology, and technology of foods and beverages in which fermentations are important (e.g. cheese, bread, pickles, beer). Fermentation techniques in developing new foods and food additives. Instrumentation and mechanization of food fermentations. Field trips. Prereq.: Biochem 501 or consent of instructor
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Spring

FOOD SCI 551 Food Fermentation Laboratory Credits: 1
Offers students the opportunity to learn to produce fermented beverages and dairy products in laboratory and scalable production facilities. Individual labs are designed to introduce students to the chemical and physical basis for development of specific characteristics associated with individual styles of products as well as analytical methods to qualify those characteristics. Course is intended for students who are 21 years of age or older and have completed or are concurrently enrolled in FOOD SCI 550. Prereq: Consent of Instructor
Typically Offered: Spring

FOOD SCI 600 Professional Practice in Food Science Credits: 1
Addresses information retrieval, use of statistics in experimental design, professional responsibility and ethics; mechanics of writing technical reports and giving oral presentations; proposal writing; creative thinking and problem-solving. Prereq: Sr or Grad st
Typically Offered: Spring

FOOD SCI 602 Senior Project Credits: 2
Part one of senior capstone requirement. Working as teams, students conduct research around a problem pertinent to the food industry. Weekly discussions plus laboratory. Data collection and analysis and report writing are critical components of this course. Prereq: Food Sci 412 & Sr st in food sci, or cons inst
Typically Offered: Fall

FOOD SCI 603 Senior Seminar Credits: 1
Part two of senior capstone requirement. Students will present data gathered and analyzed as part of the senior project. Prereq: Food Sci 602
General Education: COM B Typically Offered: Spring

FOOD SCI 610 Food Proteins Credits: 2
Lecture. Protein structure and functions; techniques of protein isolation and characterization; functional properties important in food processing. Prereq: Biochem 501 or 601 & cons inst
Typically Offered: Spring
FOOD SCI 611 Chemistry and Technology of Dairy Products Credits: 3
Chemistry of milk components (i.e. protein, lipids, carbohydrate, salts, enzymes) with an emphasis on chemical and physical changes that occur during the manufacture of a range of milk products (i.e. ice cream, butter, cheese). Dairy technology and microbiological quality. Prereq: Food Sci 310 or consent of instructor
Typically Offered: Spring

FOOD SCI 642 Food and Pharmaceutical Separations Credits: 2 - 3
Basic principles of production-scale separation processes in the food and pharmaceutical industries including gravity sedimentation and centrifugation, extraction, adsorption, chromatography, precipitation, conventional and membrane filtration, crystallization, and drying. Third credit adds group term project, integrating principles with experiments, defined by students' interests. Prereq: Consent of instructor
Typically Offered: Fall

FOOD SCI 650 Advanced Microbiology of Foodborne Pathogens Credits: 3
Infectious and toxigenic agents of foodborne disease: detection, identification, and control methods; ecology and survival strategies of pathogens in foods; virulence mechanisms of foodborne pathogens. Prereq: Bact/Food Sci 325 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FOOD SCI 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring

FOOD SCI 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Food Sci 682
Typically Offered: Fall, Spring, Summer

FOOD SCI 699 Special Problems Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOOD SCI 710 Chemistry of the Food Lipids Credits: 2
Chemical constitution, structures, reactions, stereochemistry of fats, phospholipids, related compounds; methods of isolation, characterization; synthesis; relation of structure to physical properties. Prereq: Biochem 601; Chem 341 or cons inst
Typically Offered: Occasionally

FOOD SCI 718 Colloid Chemistry of Foods Credits: 2
Application of principles of colloid chemistry to various food colloids, for example, casein, milk fat globules, gelatin, gluten, starch. These systems are studied from the following standpoints: size distribution; transport behavior; suspension stability. Prereq: Chem 561 or 565 or equiv; Biochem 501 or equiv
Typically Offered: Occasionally

FOOD SCI 799 Practicum in Food Science Teaching Credits: 1 - 3
Teaching experience for PhD candidates. Prereq: Grad st & cons inst
Typically Offered: Occasionally

FOOD SCI 875 Special Topics Credits: 1 - 3
New graduate and courses of current interest. Prereq: Grad st and cons inst
Typically Offered: Occasionally

FOOD SCI 900 Seminar Advanced Credits: 1
Research literature and current departmental research. Prereq: Food Sci 600 or equiv
Typically Offered: Fall, Spring

FOOD SCI 990 Research Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Occasionally

FOREST AND WILDLIFE ECOLOGY
F&W ECOL 1 Cooperative Education/Co-op in Forest & Wildlife Ecology Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in F&W Ecol 399. Prereq: So st, and consent of supervising instructor and academic advisor. Typically Offered: Fall, Spring, Summer

F&W ECOL 100 Introduction to Forestry Credits: 2
Relationship of humans to forest resources. Roles of the forester in manipulating the forest environment to produce goods and services desired by contemporary society. Current issues in forest resource management and policy, with emphasis on the relation to environmental quality and natural resources. Prereq: Open to Fr L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

F&W ECOL 101 Orientation to Wildlife Ecology Credits: 1
Introduction to the Wildlife Ecology major and the profession of wildlife management/conservation. Emphasis on preparing students for a successful career. Prereq: For WI Ecol majors. Open to Fr Typically Offered: Fall

F&W ECOL 110 Living with Wildlife - Animals, Habitats, and Human Interactions Credits: 3
A general survey course of wildlife and wildlife conservation for non-majors. Basic characteristics and management of wildlife populations and habitats. Human perceptions and interactions with wildlife. Current issues in wildlife management and conservation. Prereq: Open to all undergrads L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

F&W ECOL 230 Introduction to Resource Based Recreation Credits: 1
An overview of outdoor recreation definition; concepts; behaviors; motivation; and trends relative to agencies with responsibilities for the management of protected areas such as parks and public lands. Prereq: Open to Freshmen Typically Offered: Fall

F&W ECOL 248 Environment, Natural Resources, and Society Credits: 3
Introduces the concerns and principles of sociology through examination of human interaction with the natural environment. Places environmental issues such as resource depletion, population growth, food production, environmental regulation, and sustainability in national and global perspectives. Prereq: Open to Fr L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

F&W ECOL 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288 Typically Offered: Fall, Spring, Summer

F&W ECOL 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor Typically Offered: Fall, Spring, Summer

F&W ECOL 300 Forest Biometry Credits: 4
Basic concepts of statistical inference and sampling theory as applied to forestry. Estimation of tree and forest characteristics. Use of aerial photographs; principles of data processing; information gathering and decision making under uncertainty. Prereq: Stat 201 or Stat 224 or Stat 301 or equiv L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

F&W ECOL 305 Forest Operations Credits: 2
Introduction to forestry operations in the implementation of forest plans, including site preparation, stand establishment, and harvesting systems. Analysis of costs and productivity, including system balance, marketing, timber procurement, and contractual services. Prereq: Forestry 300 or 410 Typically Offered: Spring

F&W ECOL 306 Terrestrial Vertebrates: Life History and Ecology Credits: 4
Life history, ecology, distribution, and taxonomy of reptiles, amphibians, birds, and mammals. Birds will receive less emphasis. Primary focus is on Wisconsin species, including conservation threats, but covers all major North American families, and surveys major groups of the world. Designed as a foundation for detailed study of vertebrates or to satisfy the need for a scientific introduction to Wisconsin vertebrates. Prereq: Sophomore standing & an elementary course in Zoology L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
F&W ECOL 309 Diseases of Trees and Shrubs Credits: 3
Fundamental disease concepts, pathogens and causal agents, diagnosis, and biologically rational principles and practices for management of diseases of trees and shrubs. For degree students and professionals. One extended lecture with discussion and one lab or field trip per week. Prereq: One semester of plant sci or consent of instructor
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL 312 Wood Identification Credits: 1
Introduction to gross and microscopic characteristics of wood. Identification of visual characteristics of twenty-eight major U.S. wood species using 10x magnification. Prereq: So st
Typically Offered: Spring

F&W ECOL 314 Wood, Industrial Use, and Society Credits: 3
This course is an introduction to wood as an industrial raw material with content covering the biological nature of wood, mechanical and biological properties of wood, technology and products of wood, and the regional, national, and global demand for wood and forest products. Prereq: Forestry 312 or con reg or cons inst
Typically Offered: Spring

F&W ECOL 318 Principles of Wildlife Ecology Credits: 3
Major environmental factors affecting wildlife; structure and behavior of wildlife populations; regional wildlife communities and their conservation. Prereq: High School biology. Open to Fr. Restricted to Wildlife Ecology majors
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL 330 Resource-Oriented Recreation Management Credits: 3
Description and evaluation of outdoor recreation resource management problems and issues on public lands; analysis of the influence of different organizational structures and decision-making strategies on planning, resource management and conflict resolution; examination of vegetation and wildlife management for preservation and recreation purposes. Prereq: Junior standing; intro courses in stats, ecology & poli sci, or consent of instructor
Typically Offered: Fall

F&W ECOL 335 Human/Animal Relationships: Biological and Philosophical Issues Credits: 3
An interdisciplinary approach to our complex and often contradictory relationships with non-human animals, including information about the nature, needs and behavior of human and non-human animals in relation to our personal and professional interactions with them. Prereq: So st
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL 360 Extinction of Species Credits: 3
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

F&W ECOL 371 Introduction to Environmental Remote Sensing Credits: 3
Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to study the environment. Includes physical processes of electromagnetic radiation, data types and sensing capabilities, methods for interpretation, analysis and mapping, and applications. Prereq: Math 114 & Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL 372 Intermediate Environmental Remote Sensing Credits: 3
Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to remote sensing of the environment. Includes transforms, image correction, classification algorithms and change detection, with emphasis on applications for land use planning and natural resource management. Prereq: Envir St 301 or consent of instructor, sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

F&W ECOL 375 Special Topics Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring
F&W ECOL  379 Principles of Wildlife Management  Credits: 3  
Ways of conserving desired numbers of animals for the overall best interests of society, be they aesthetic, 
ecological, economic, commercial or recreational; includes management of endangered species, exploited 
species, wildlife communities in nature reserves, and wildlife pests.  Prereq: Wl Ecol 318 or equiv
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL  399 Coordinative Internship/Cooperative Education  Credits: 1 - 8  
Prereq: So, Jr or Sr st and cons of supervising inst, advisor, and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

F&W ECOL  400 Study Abroad in Forest and Wildlife Ecology  Credits: 1 - 6  
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to 
existing UW courses.  Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

F&W ECOL  401 Physiological Animal Ecology  Credits: 3  
Physiological adaptation and function in wild animals, primarily birds, mammals, reptiles, amphibians. Focus on 
interactions between animals and their environment, and relationships between animal physiology and the 
ecology and dynamics of populations.  Prereq: Jr st and basic zoology course
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL  402 Dendrology  Credits: 2  
Identification, ranges, uses, and some ecological characteristics of evergreen and deciduous woody plants, both 
native and cultivated; lab and field work.  Prereq: A 5 cr intro college crse in bot or equiv
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

F&W ECOL  404 Wildlife Damage Management  Credits: 3  
Theory and application of wildlife management from a species-specific and situational perspective. Introduction to 
career options in wildlife damage management.  Prereq: F&W ECOL 379, or cons inst
Typically Offered: Spring

F&W ECOL  410 Principles of Silviculture  Credits: 3  
Ecologically-based forest management principles for sustainable timber production, maintenance or restoration of 
biological diversity, and maintenance of aesthetic quality and site productivity. Includes coverage of even-aged 
and uneven-aged management, reforestation principles, and ecological restoration techniques.  Prereq: 
(Declared in Forest Science or Wildlife Ecology) and (BOTANY/F&W ECOL/ZOOLOGY 460 or F&W ECOL 550) 
or graduate standing
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL  411 Practices of Silviculture  Credits: 1  
Field and some laboratory experience in utilization of ecologically-based forest management practices for 
sustainable timber production, maintenance or restoration of biological diversity, and maintenance of aesthetic 
quality and site productivity. Includes coverage of even-aged and uneven-aged management, reforestation 
principles, and ecological restoration techniques.  Prereq: Concurrent or prior enrollment in F&W ECOL 410
Typically Offered: Spring

F&W ECOL  415 Tree Physiology  Credits: 3  
Physiological basis of development of forest trees and stands, factors affecting tree growth.  Prereq: Botany 350 
or 500 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL  424 Wildlife Ecology Summer Field Practicum  Credits: 2  
Two week field class emphasizing research and habitat management techniques through individual and group 
field work, tours, demonstrations and lectures. Class held in northern Wisconsin, transportation and lodging 
provided.  Prereq: Open to wildlife ecol majors only, Jr/Sr st or cons inst
Typically Offered: Summer
F&W ECOL  450 Communities and Forests Credits: 3
An examination on a global basis of the interactions between human communities and forests, with an emphasis on alternative approaches to community forestry management, drawing on both first and third world experiences. Prereq: Sr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL  451 Environmental Biogeochemistry Credits: 3
Emphasis is given to a consideration of the processes influencing the distribution and cycling of chemical elements in native and anthropogenic ecosystem-level cycles of elements, and biogeochemical cycling in major soil-biome systems. Prereq: Chem 103-104 or equivalent
Typically Offered: Spring

F&W ECOL  452 World Forest History Credits: 3
Examines world forest history, with attention to links between societal change and forest change. Examines how different peoples have used or abused the forest, how societies have struggled to establish policies governing forests, and how perceptions of forests have evolved.
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL  455 The Vegetation of Wisconsin Credits: 4
Ecology of Wisconsin plant communities; floristic composition, community structure; relationship to history, climate, soil, and geology; response to human perturbation. Lecture and lab. Prereq: Botany 100, or Botany 130, or Botany/Zoology 151-152, or Biocore 313
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL  460 General Ecology Credits: 4
Ecology of individual organisms, populations, communities, ecosystems, landscapes, and the biosphere. The interaction of organisms with each other and their physical environment. These relationships are studied, often in quantitative terms, in both field and laboratory settings; lecture and lab. Prereq: Intro course in botany & zoology, or Bot/Zoo 151-152, or Biocore 301 or 333; for biol sci majors only
General Education: QR-B  L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

F&W ECOL  500 Insects in Forest Ecosystem Function and Management Credits: 2
Roles of insects in the functioning of healthy forest ecosystems, tactics for addressing challenges they pose to sustainable natural resource management, and emerging issues such as biological invasions, habitat alteration, and climate change that influence interactions among insects, their microbial associates, forests, and humans.
Prereq: Botany 151 & 152 or equivalent
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL  501 Forest Fire Behavior and Management Credits: 1
Principles and applications of forest fire behavior, prediction, control and use; current policy issues in fire management. Prereq: Forestry 100 or college level plant ecology course
Typically Offered: Spring

F&W ECOL  515 Natural Resources Policy Credits: 3
This course examines natural resources policy and law in the United States relating to forests, wildlife, and other natural resources. The course investigates the policy-making process and the role of science, values, property, economics, and justice in the development of federal and state resources policy. Students are trained in professional written and oral communication and ethical engagement in resources policy and administration.
Prereq: F&W ECOL 379, or 410, or consent of instructor
General Education: COM B  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

F&W ECOL  520 Ornithology Credits: 3
Introduction to bird biology, ecology, and behavior. Topics include the evolutionary origin of birds and flight, anatomy and physiology, functional morphology, migration, communication, reproductive strategies, ecological adaptations and roles, and biogeographical patterns. Prereq: BIOLOGY/ZOOLOGY 101 and 102, BIOLOGY/BOTANY/ZOOLOGY 151 and 152 or BIOCORE 381 and 382
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
F&W ECOL 521 Birds of Southern Wisconsin Credits: 3
Outdoor and indoor labs/lectures emphasizing identification of southern Wisconsin birds by sight and vocalization. Two required Saturday field trips in Southern Wisconsin. Prereq: BIOLOGY/ZOOLOGY 101 and 102 or BIOLOGY/BOTANY/ZOOLOGY 151 and 152 or BIOCORE 381 AND 382
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

F&W ECOL 524 Urban Soil and Environment Credits: 3
Many environmental issues related to urbanization are derived from the manipulation of soil. By coupling contemporary literature in urban soils with soil science, students will be able to evaluate environmental issues within the urban environment and provide new ways of remediating their impact. Prereq: Soil Sci 301 or 230
Typically Offered: Spring

F&W ECOL 531 Natural Resource Economics Credits: 3
Economic concepts and tools relating to management and use of natural resources, including pricing principles, cost-benefit analysis, equity, externalities, economic rent, renewable and nonrenewable resources, and resource policy issues. Prereq: Econ 301 and Math 211, or equiv
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

F&W ECOL 548 Diseases of Wildlife Credits: 3
This course is designed to provide students with an overview of the issues involved across a wide range of wildlife diseases, presented within the context of ecosystem health or "one health". The primary focus of the lectures will be on the biological, epidemiological, clinical, public health and, in some cases, sociopolitical ramifications of wildlife diseases. The course will cover a wide variety of wildlife diseases caused by bacteria, viruses, parasites, prions, and environmental contaminants. Consequences associated with environmental changes on the manifestation of wildlife diseases will also be discussed. This range of diseases will be presented in order to familiarize students with
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

F&W ECOL 550 Forest Ecology Credits: 3
Introduction to major abiotic and biotic factors that influence forest ecosystem composition, structure, and function. Reviews important processes that influence structure and function of forest ecosystems. Uses basic ecosystem concepts to elucidate influence of anthropogenic (including forest management) and natural disturbances on forest ecosystem structure and function. Prereq: Five credit botany course
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

F&W ECOL 551 Forest Ecology Lab Credits: 1
Forest Ecology laboratory is the companion course for the lecture-based Forest Ecology (F&W ECOL 550). The objective of the forest ecology laboratory is to review concepts that are presented in the classroom by exposing students to the key concepts and processes discussed in lecture that can best be seen in the field or illustrated with the use of ecosystem models. Prereq: Previous or concurrent enrollment in F&W ECOL 550
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

F&W ECOL 556 Principles of Landscape Ecology Credits: 2
Landscape ecology emphasizes the importance of spatial patterns at broad scales. Concepts and applications are emphasized, especially for seniors and graduate students in applied natural resource fields. The course is also a prerequisite for Zoology/Forest Ecology 665, Advanced Landscape Ecology. Lecture format with discussion. Prereq: Botany/Zoology/Forest 460, or Forest 550, a crse in stats, & cons inst
L&S Breadth: Biological Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

F&W ECOL 561 Wildlife Management Techniques Credits: 3
Preparation of collections, analyses of food habits, sex and age determinations, censuses, trapping and banding, planting food and cover; research techniques. Prereq: Cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

F&W ECOL 565 Principles of Landscape Ecology Credits: 2
Landscape ecology emphasizes the importance of spatial patterns at broad scales. Concepts and applications are emphasized, especially for seniors and graduate students in applied natural resource fields. The course is also a prerequisite for Zoology/Forest Ecology 665, Advanced Landscape Ecology. Lecture format with discussion. Prereq: Botany/Zoology/Forest 460, or Forest 550, a crse in stats, & cons inst
L&S Breadth: Biological Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

F&W ECOL 571 Statistical Methods for Bioscience I Credits: 4
Descriptive statistics, distributions, one- and two-sample normal inference, power, one-way ANOVA, simple linear regression, categorical data, non-parametric methods; underlying assumptions and diagnostic work. Prereq: College algebra: Grad st or cons inst
General Education: QR-B L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
F&W ECOL 572 Statistical Methods for Bioscience II Credits: 4
Continuation of Forestry 571. Polynomial regression, multiple regression, two-way ANOVA with and without interaction, split-plot design, subsampling, analysis of covariance, elementary sampling, introduction to bioassay. Prereq: Stats/Forestry/Hort 571
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

F&W ECOL 577 Complexity and Conservation of White-tailed Deer Credits: 3
Solving problems that arise in the conservation and management of wildlife populations requires that managers understand and evaluate human cultural, economic, and political issues in addition to ecological issues. Students will use deer management in Wisconsin as a case study to understand the interdisciplinary nature of wildlife management while gaining practical hands-on experiences. Prereq: Junior standing and declared in the Wildlife Ecology program
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

F&W ECOL 590 Integrated Resource Management Credits: 3
Resource management planning in state and federal land management agencies. Students apply principles by working in teams to develop a management plan for a real property by inventorying resources; developing management objectives and alternatives; and analyzing their ecological, social and institutional implications. Typically Offered: Fall

F&W ECOL 599 Wildlife Research Capstone Credits: 3
Capstone synthesis for wildlife ecology majors preparing themselves for a wildlife research career. Students develop a professional-quality research proposal for an extended project, carry out a pilot ecological field study, and design and implement a social survey questionnaire. Prereq: Sr st & Wl Ecol 561
Typically Offered: Spring

F&W ECOL 606 Colloquium in Environmental Toxicology Credits: 1
Current topics in molecular and environmental toxicology and problems related to biologically active substances in the environment. Topics vary each semester. Lectures are by resident and visiting professors and other researchers. Prereq: Biology/Zoology 101, Biology/Botany 130, or equivalent
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

F&W ECOL 632 Ecotoxicology: The Chemical Players Credits: 1
Introduction to natural and man-made toxins/toxicants, their distribution, transport, and fate in the environment. Includes lectures, current research presentations, and discussions. Prereq: 2 sem intro biol & 1 sem organic chem, or cons inst
Typically Offered: Occasionally

F&W ECOL 633 Ecotoxicology: Impacts on Individuals Credits: 1
Addresses absorption, biotransformation, elimination of toxins in a wide variety of taxa (plants, invertebrates, vertebrates), and includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 632, or 2 sem intro biol & M&Envtox 631, or cons inst
Typically Offered: Occasionally

F&W ECOL 634 Ecotoxicology: Impacts on Populations, Communities and Ecosystems Credits: 1
Focuses on the impact of toxicants on populations, communities, ecosystems, and includes risk evaluation. Includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 633, or M&EnvTox 625, 626 & 631, or cons inst
Typically Offered: Occasionally

F&W ECOL 635 Forest Stand Dynamics Credits: 1 - 2
Changes in forest species composition and structure at the stand and landscape level resulting from tree growth, competition, succession, and disturbance. Methods for reconstructing past stand development and forecasting future trajectories. Selected applications in forest management and natural areas management. Prereq: Crse in silviculture or ecology (Botany 460 or equiv) & crse in stats. Sr or Grad st
Typically Offered: Spring

F&W ECOL 651 Conservation Biology Credits: 3
Application of ecological principles and human dimensions to the conservation of biological diversity. Topics: biodiversity science; conservation planning; population ecology; habitat loss, species exploitation, invasive species, pollution, human attitudes and activities as they affect the biosphere; approaches to monitoring interventions. Prereq: An ecology crse (eg, Botany/Zoology 460)
General Education: QR-B L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
F&W ECOL 652 Decision Methods for Natural Resource Managers Credits: 3 - 4
Applications of quantitative methods, including optimization and simulation, to the management of natural resources, especially forests. Prereq: Math 211 or equiv & Comp Sci 132 or equiv
General Education: QR-B  L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL 655 Animal Population Dynamics Credits: 3
Fluctuations of animal populations: techniques of study, documentation, controls. Prereq: WI Ecol 318 or equiv, and crse in stats
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL 658 Forest Resources Practicum Credits: 3
Field training and experience; exposure to forestry operations, equipment, procedures, and management problems. Prereq: Cons inst
Typically Offered: Summer

F&W ECOL 660 Climate Change Ecology Credits: 3
The evidence that the Earth's climate is changing at unprecedented rates is now overwhelming. Environmental tipping points are being crossed and many species are adapting or failing to adapt. Climate change poses a significant problem for conserving and managing wildlife and their habitats. In this class, students will be introduced to climate change and its ecological impacts through engaging class discussions, online climate exercises, and group projects aimed at developing climate change adaptation plans. Prereq: Junior or Senior standing as a Forest Science or Wildlife Ecology major; graduate student standing; F&W Ecol/Zoology/Botany 460; or consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

F&W ECOL 672 Historical Ecology Credits: 2
Historical Ecology is an area of ecology that considers the importance of past events for current ecosystems. Concepts and applications are emphasized. Multidisciplinary emphasis, for seniors and graduate students in biological sciences, social studies, and humanities. Discussion format. Prereq: Graduate or senior standing and consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

F&W ECOL 675 Professional Development in Forest & Wildlife Ecology Credits: 1
This special topics course provides opportunities for students in Forest and Wildlife Ecology to receive additional training in professional development skills relevant to their careers in natural resources. Prereq: Forest Science or Wildlife Ecology major or graduate standing
Typically Offered: Fall, Spring, Summer

F&W ECOL 681 Senior Honors Thesis Credits: 2 - 4
Forestry research; an independent and original study guided by a staff member. Prereq: Hon candidacy
Typically Offered: Fall, Spring

F&W ECOL 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Forest 681
Typically Offered: Fall, Spring, Summer

F&W ECOL 691 Senior Thesis Credits: 2 - 4
Independent research guided by a faculty member (non-honors). Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

F&W ECOL 692 Senior Thesis Credits: 2 - 4
Independent research guided by a faculty member (non-honors). Continuation of F&W ECOL 691. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

F&W ECOL 699 Special Problems Credits: 1 - 4
Prereq: Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
F&W ECOL 711 Multivariate Analysis of Ecological and Community Data Credits: 2
This course will examine some common methods of multivariate data analysis in ecology and environmental science. Often called "community data analysis," this class will cover methods for the analysis of complex, multidimensional datasets that are collected in the study of plant, invertebrate, fish, and bird communities. We will also address the concurrent analysis of the environmental factors that may drive community distributions. All of this provides the basis for predictive modeling of distributions across landscapes. General methods we will cover include ordination (PCA, DCA, NMDS, CCA), clustering (or classification), and other comparative analyses of data matrices (ANOSIM, Mantel tests.
Typically Offered: Fall

F&W ECOL 749 Social Policy and Management of National Parks and Protected Areas Credits: 3
Explores the relationship of social policy to the formation and management of U.S. National Parks in the past, present and future. Implications of social policy for park systems and preserves throughout the world are addressed. Prereq: Grad st or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

F&W ECOL 790 Special Problems Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Occasionally

F&W ECOL 799 Practicum in Forestry and Wildlife EcologyTeaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: Occasionally

F&W ECOL 840 Metapopulations and Other Advanced Topics Credits: 3
Explore the use of metapopulation models in ecology and conservation. The course will review population dynamics, present the concepts of metapopulations and the implications to wildlife management and conservation biology. Prereq: A basic crse in population dynamics
Typically Offered: Occasionally

F&W ECOL 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

F&W ECOL 879 Advanced Landscape Ecology Credits: 3
Landscape ecology emphasizes spatial patterning--its development and importance for ecological processes--and often focuses on large regions. Concepts, methods, and applications of landscape ecology will be learned through lectures, readings, exercises in quantitative approaches, and an independent project. Prereq: Grad st & cons inst
Typically Offered: Occasionally

F&W ECOL 901 Colloquium in Forestry and Forest Products Credits: 1
Lectures, seminars, and discussion on current topics in forest biology, forest management, forest products, and recreation. Prereq: Graduate or professional standing
Typically Offered: Occasionally

F&W ECOL 953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

F&W ECOL 955 Practical Research Design and Methods of Empirical Inquiry Credits: 3
Provides a practical introduction to basic concepts of research question formulation, research designs and alternative methods of inquiry, implications for internal validity of the research and generalizability of the findings, operational definitions and measurement validity, reliability, utility and precision. Prereq: Graduate or professional standing
Typically Offered: Occasionally
F&W ECOL  961 Wildlife Seminar Credits: 1
Monthly research reports and special topics.  Prereq: Graduate or professional standing
Typically Offered: Occasionally

F&W ECOL  980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface
systems, involving physical geochemical and biological processes, and including interactions with human
systems.  Prereq: Grad st
Typically Offered: Occasionally

F&W ECOL  990 Research and Thesis Credits: 1 - 12
Prereq: Grad st and cons inst
Typically Offered: Occasionally

F&W ECOL  999 Advanced Independent Study Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

GENETICS

GENETICS  1 Cooperative Education/Co-op in Genetics Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to
provide students with a background upon which to base a professional career. Students receive credit only for the
term in which they are actively enrolled and working. The same work experience may not count towards credit in
Genetics 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

GENETICS  133 Genetics in the News Credits: 3
The science of genetics is at the heart of many issues facing our society, and as such, genetics is often in the
news. This course explores the underlying genetics and methodologies to gain a deeper understanding of the
science behind the headlines so that we can make more informed decisions as citizens. This course is intended
for non-biological science majors, but a high school or college-level biology course is recommended as a
prerequisite. Prereq: None
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS  155 Freshman Seminar in Genetics Credits: 1
This seminar will introduce freshman to the discipline of genetics, to the UW Laboratory of Genetics, to some of
the research projects the faculty are pursuing, to resources available at UW-Madison, and to the career options
open to an individual with a genetics undergraduate degree. Prereq: None
Typically Offered: Spring

GENETICS  289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Soph or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

GENETICS  299 Independent Study Credits: 1 - 3
Prereq: Freshmen, Sophomore or Junior standing & written consent of instructor. Open to Freshmen
Typically Offered: Occasionally

GENETICS  375 Special Topics Credits: 1 - 4
Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GENETICS  399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st and cons supervising inst, advisor, and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GENETICS  400 Study Abroad in Genetics Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to
existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer
GENETICS 466 Principles of Genetics Credits: 3
Genetics in eukaryotes and prokaryotes. Includes Mendelian genetics, mapping, molecular genetics, genetic engineering, cytogenetics, quantitative genetics, and population genetics. Illustrative material includes viruses, bacteria, plants, fungi, insects, and humans. Students may not enroll for GENETICS 466 and GENETICS 467/468. Prereq: (BIOLOGY/BOTANY/ZOOLOGY 151 or BIOCORE 381 or BIOLOGY/BOTANY 130 or BIOLOGY/ZOOLOGY 101 and 102) and (CHEM 104 or CHEM 109 or CHEM 115)
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GENETICS 467 General Genetics 1 Credits: 3
Genetics of eukaryotes and prokaryotes. Includes Mendelian genetics, probability and hypothesis testing, genetic mapping, molecular genetics, gene expression and genetic engineering. Illustrative material includes viruses, bacteria, plants, fungi, insects, and humans. Students may not enroll in GENETICS 466 and GENETICS 467/468. Prereq: GENETICS 467
Typically Offered: Fall

GENETICS 468 General Genetics 2 Credits: 3
Genetic analysis, population genetics, evolution and quantitative genetics. Includes mutant screens, pathway analysis, mosaic analysis, reverse genetics, genomics, Hardy-Weinberg & linkage equilibrium, inbreeding, genetic drift, natural selection, population structure, inheritance of complex traits, domestication and human evolution. Students may not enroll in GENETICS 466 and GENETICS 467/468. Prereq: GENETICS 467
Typically Offered: Spring

GENETICS 470 Basic Cytology and Laboratory Procedures Credits: 1
A comprehensive review of cellular biology, the study of optical methods with emphasis on the light microscope and the various techniques used in preparation and staining of specimens for cytologic and histologic study. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Fall

GENETICS 471 Advanced Laboratory Procedures Credits: 1
Preparation of non-gynecologic cytologic specimens using several different instrument methodologies. Application of universal precautions and safety in the handling of unknown biologic hazards. Introduction to histologic preparatory techniques and special staining methods. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Summer

GENETICS 522 Evolution Seminar Series-Undergraduate Credits: 1
The Evolution Seminar Series exposes students to diverse topics in contemporary evolutionary biology. Most weeks, one or more guest lecturers present their own primary research on a specialized topic in evolutionary biology. Diverse seminars include perspectives from genetics, ecology, geoscience, zoology, botany, microbiology, systematics, molecular biology, and integrative research. Some weeks feature special topics and discussions on pedagogical, legal, outreach, or other issues in evolutionary biology. Students learn to think critically about methodology, experimental design and interpretation, and how conclusions are reached in evolutionary biology by reading primary and secondary lite
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GENETICS 545 Genetics Laboratory Credits: 2
Students gain practical experience in classical and molecular genetic laboratory techniques using plants, animals, and fungi. Topics include complementation and linkage analysis, gene mapping, library screening, yeast and bacterial transformation, restriction analysis, PCR, sequencing, and Southern blot analysis. Prereq: Genetics 466 or equiv
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GENETICS 550 Molecular Approaches for Potential Crop Improvement Credits: 3
Introduction of basic concepts of plant molecular biology and molecular techniques in current use. Topics include: organization and regulation of plant genes, gene cloning and analysis, transformation systems for plants, and molecular techniques for crop improvement. Prereq: Biochem 501 and Genetics 466 or equiv courses
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall
GENETICS 561 Introductory Cytogenetics Credits: 2 - 3
Mitosis, meiosis, variations in chromosome structure and number, cytological aspects of hybridity and apomixis; chromosomes as they affect breeding behavior. Prereq: Genetics, Botany, Zoology 466 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS 562 Human Cytogenetics Credits: 2
Fundamental principles of cytogenetics and special problems of human cytogenetics for biology and medical students. Prereq: Genetics/Bot/Zool 160 or 466 or Med Genet 721 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS 564 Genomics and Proteomics Credits: 3
The basic principles of genomics, proteomics and bioinformatics will be taught through readings of the scientific literature, class presentations, group projects and computer lab web-based experiences. Emphasis will be placed upon student participation in the learning process. Some topics covered will be: genomic sequencing, motif discovery, DNA microarray, high-throughput genetics, chemical genetics, mass spectrometry techniques and protein networks. Prereq: Genetics 466 and consent of instructor. Biochemistry 501 and Microbiology 303 are recommended
Typically Offered: Spring

GENETICS 565 Human Genetics Credits: 3
Principles, problems, and methods of human genetics. Surveys aspects of medical genetics, biochemical genetics, molecular genetics, cytogenetics, quantitative genetics, and variation as applied to humans. Prereq: Genet 466 or equiv or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GENETICS 566 Advanced Genetics Credits: 3
Principles of classical and molecular genetic analysis taught through readings in the scientific literature. Prereq: Genetics 466 (or equiv) & genetics major or cons inst. Required of all undergrad genetics majors
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS 567 Companion Research Seminar Credits: 1
Student-led discussions on scientific, societal, and professional topics relevant to Senior research and selected original research presentations. This course is a companion seminar for independent research and together will fulfill the Genetics major capstone requirement. Prereq: Gen 466 or instructor consent. Must be taken concurrently with independent research Genetics 699 or Genetics 681/682 series
Typically Offered: Fall

GENETICS 568 The Central Nervous System Credits: 1
Anatomy, physiology, histology and pathology of the central nervous system and the corresponding cellular manifestations which provide diagnostic information. Cell changes related to specimen preparation. Correlation of the didactic information with the microscopic cellular patterns to provide a diagnosis. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Spring

GENETICS 569 The Breast Credits: 1
Anatomy, histology, physiology and pathology of the breast and the corresponding cellular manifestations which provide diagnostic information. Cell changes related to specimen processing. Correlation of the didactic information with the microscopic cell patterns to provide a diagnosis. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Fall, Spring

GENETICS 570 The Female Reproductive System Credits: 8
Anatomy, histology, physiology, and pathology of the female reproductive tract and the corresponding cellular manifestations which provide diagnostic information. Cellular changes due to therapy and specimen collection. Correlation of the didactic information with the microscopic cellular patterns to provide a diagnosis. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Fall

GENETICS 571 Clinical Practice I Credits: 1
Clinical practicum to develop diagnostic expertise involving the microscopic examination of routine gynecologic specimens (Pap smears). Observe the signout of abnormal cytologic specimens by cytopathologist staff. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Fall
GENETICS 572 The Respiratory System Credits: 3
Anatomy, histology, physiology and pathology of the respiratory tract and the corresponding cellular manifestations which provide diagnostic information. Cell changes related to specimen processing. Correlation of the didactic information with the microscopic cellular patterns to provide a diagnosis. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Fall

GENETICS 573 The Genitourinary System Credits: 2
Anatomy, physiology, histology and pathology of the urinary tract and male reproductive systems and the corresponding cellular manifestations which provide diagnostic information. Cell changes related to specimen processing. Correlation of didactic information with microscopic cell patterns to provide a diagnosis. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Spring

GENETICS 574 The Gastrointestinal System Credits: 3
Anatomy, histology, physiology and pathology of the gastrointestinal system and the corresponding cellular manifestations which provide diagnostic information. Cell changes related to specimen processing. Correlation of the didactic information with the microscopic cellular patterns to provide a diagnosis. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Spring

GENETICS 575 Miscellaneous Systems Credits: 3
Anatomy, histology, physiology and pathology of skin, thyroid, lymph nodes and other sites and the corresponding cellular manifestations which provide diagnostic information. Emphasis on specimen collection by fine needle aspiration. Correlation of the didactic information with the microscopic cellular patterns to provide a diagnosis. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Spring

GENETICS 576 Effusions Credits: 2
Anatomy, physiology, histology and pathology of the body cavities. Cytologic manifestations which provide diagnostic information. Cell changes related to specimen processing. Correlation of the didactic information with the microscopic cellular patterns to provide a diagnosis. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Spring

GENETICS 577 Applied Cytology I Credits: 1
Written and practical application of the comprehensive body of knowledge to all aspects of preparation, evaluation, correlation and diagnosis of cytologic specimens. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Spring

GENETICS 578 Applied Cytology II Credits: 1
Written and practical application of the advanced comprehensive body of knowledge to all aspects of preparation, evaluation, correlation and diagnosis of cytologic specimens. Practice in nationally offered cytologic examinations. Prereq: Std must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Summer

GENETICS 607 Advanced Microbial Genetics Credits: 3
Molecular genetic methods and related aspects of prokaryotic and lower eukaryotic biology, as well as critical analysis of the scientific literature. Approximately two-thirds of the course will focus on prokaryotes and one-third on lower eukaryotic microbes. Prereq: Genetics 466 or equiv, Biochem 501 or equiv, & Grad st or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GENETICS 610 Quantitative Genetics Credits: 3
An advanced approach with emphasis on statistical foundations. Classical theory with extensions to maternal and paternal effects. Selection theory is considered in depth. Prereq: Genetics 466 and Statistics 572 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
GENETICS 612 Prokaryotic Molecular Biology Credits: 3
Molecular basis of bacterial physiology and genetics with emphasis on molecular mechanisms; topics include nucleic acid-protein interactions, transcription, translation, replication, recombination, regulation of gene expression. Prereq: Bact 370 or equiv & Biochem 501 or equiv, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GENETICS 620 Eukaryotic Molecular Biology Credits: 3
This course focuses on the basic molecular mechanisms that regulate DNA, RNA, and protein metabolism in eukaryotic organisms. This course is intended for advanced undergraduates and first year graduate students with a firm knowledge of basic biochemistry. Prereq: BIOCHEM 508
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS 624 Molecular Ecology Credits: 3
Basic principles of molecular ecology. Lecture topics include population genetics, molecular phylogenetics, rates and patterns of evolution, genome evolution, and molecular ecology. Prereq: BOTANY/GENETICS/ZOOLOGY 466, GENETICS 467 or BIOCORE 383 or graduate student standing
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS 626 Genomic Science Credits: 2
This course is designed to bring cutting-edge topics in the genomic sciences into the reach of traditionally "pure" chemistry, biology, engineering, computer science & statistics students. It is also designed for enabling biologically-oriented students to deal with the advances in analytical science so that they may incorporate new genomic science concepts into their own scientific repertoires. Intended for graduate students and for undergraduates with extensive research experience. Prereq: Graduate student standing
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GENETICS 627 Animal Developmental Genetics Credits: 3
Advanced Genetics course focusing on genetic mechanisms of animal embryonic development, with particular emphasis on central molecular circuitries that control development and genetic analytical tools used to reveal them. Using a combination of lectures and primary research literature reading/student-led seminars, we will address topics including maternal and epigenetic inheritance, the egg-to-embryo transition, pattern formation, organogenesis, coordination of cellular and molecular mechanisms, and animal models of human congenital disorders. Prereq: Genetics 466 or Consent of Instructor. Zoology 470 is recommended
Typically Offered: Every Other Spring

GENETICS 629 Evolutionary Genetics Credits: 3
Basic principles of phylogenetics, population genetics and quantitative genetics including the construction of gene trees, forces affecting the amount and distribution of genetic variation in populations, and the inheritance and evolution of multifactorial characters. Prereq: Genetics 466 or Biocore 301 & 302 or equiv. Knowledge of intro calc & stats or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GENETICS 631 Plant Genetics Credits: 2
This is a graduate-level course in plant genetics. We will cover the basic concepts of genetics and genomics as applied to plants, including discussions on breeding systems (modes of reproduction, sex determination, self incompatibility and crossing barriers), linkage analysis, genome structure and function (structure, function and evolution of nuclear and organellar chromosomes; haploidy and polyploidy; expression regulation and epigenetics), and a description of current methodologies used in the analysis of these processes. Our objective is to instigate in students a broader knowledge and understanding of the principles and methodologies used in plant genetics such that they can adopt them
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GENETICS 633 Population Genetics Credits: 3
A course for graduate and upper-level undergraduate students focused on the interpretation of genetic variation in natural populations. We will study the basic models that connect genetic variation to underlying evolutionary and genetic processes, including mutation, recombination, genetic drift, migration, and natural selection. We will discuss methods for measuring DNA variation, including the analysis of genome-scale data sets. Prereq Genetics 466 or Consent of Instructor
Typically Offered: Fall
GENETICS 645 Modeling in Population Genetics and Evolution Credits: 3
Introduction to mathematical techniques and approaches for predicting evolutionary change within populations. Concentrates on classic population genetic models and results, including selection on one and several loci; mutation; non-random mating; drift. Evaluation based on periodic problem sets and independent projects.
Prereq: Intro evolution, intro genetics, calculus, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GENETICS 655 Biology and Genetics of Filamentous Fungi Credits: 3 - 4
Fungal genetics, genomics, and physiology using plant pathogenic fungi and the genetic models Aspergillus nidulans and Neurospora crassa as model systems to explore the current knowledge of fungal genetics and plant/fungal interactions. Prereq: Cons inst; Pl Path 300 & 332 recommended; Genetics 466 or equiv; general microbiol crse
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

GENETICS 660 Evolutionary Genomics Credits: 2
We will present and discuss modern topics in evolutionary genomics, including genomic approaches, their application to evolutionary biology, and insights gleaned from such studies. Topics include evolution of genome architecture, gene content, and sequences. The course also covers molecular evolution as applied to the genome scale. Prereq: Genetics 466 or Biocore 301/302 sequence or equivalent, and consent of instructor
Typically Offered: Every Other Spring

GENETICS 670 Seminar in Clinical Cytogenetics Credits: 1
Overview of the basic features of chromosome structure and behavior including karyotyping clinical correlates of numerical and structural chromosome aberrations, sex chromosome abnormalities, breakage syndromes and the chromosomal changes associated with the development of cancer. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Summer

GENETICS 671 Advanced Clinical Practice Credits: 8
Clinical practicum to develop diagnostic expertise of cytologic specimens. Examine challenging cases with emphasis on diagnostic pitfalls. Observe patient clinics related to cytologic specimen collection. Participate at clinical experiences in fine needle aspiration, histology, and a private cytology laboratory. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Summer

GENETICS 672 Seminar in Laboratory Operations and Quality Control Credits: 1
Review the fundamentals of basic administrative functions and regulatory requirements including planning, organizing, supervising and controlling business management, record keeping, data processing and laboratory safety. Quality assurance procedures necessary for obtaining, processing, diagnosing and reporting cytologic specimens. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI State Lab of Hygiene
Typically Offered: Summer

GENETICS 673 Seminar in Clinical Cytology Credits: 1
Preparation of a case study or clinical topic of choice by each student to present to a peer professional group of cytology staff and medical faculty. Preparation of a referenced scientific term paper or participation in an approved research or class project pertaining to clinical cytology. Prereq: Stdt must be enrolled in the cytotechnology internship prgm at the WI Statte Lab of Hygiene
Typically Offered: Summer

GENETICS 677 Advanced Topics in Genetics Credits: 1 - 3
Contents vary; consideration of subjects not included in the curriculum. Prereq: Cons inst or Grad st
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GENETICS 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors candidacy
Typically Offered: Fall, Spring, Summer

GENETICS 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Genetics 681
Typically Offered: Fall, Spring, Summer
GENETICS 699 Special Problems Credits: 1 - 3
Advanced work not covered in regular courses. Prereq: Cons inst and Sr st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GENETICS 701 Advanced Genetics Credits: 3
Advanced Genetics is the first semester course of a 2-semester core series (Genetics 701 and Genetics 702) for first-year graduate students in the Genetics doctoral degree program. This series provides professional level training in genetic mechanisms and analysis as applied to genetic transmission, gene expression, forward and reverse genetics, population and quantitative genetics, molecular genetics, genomics, developmental genetics and epigenetics. Lectures are coupled with assigned readings of peer-reviewed literature that serve as the basis for graded in-class presentations and discussion, homework questions and essays. Prereq: Declared in the Genetics doctoral program
Typically Offered: Occasionally

GENETICS 702 Advanced Genetics II Credits: 3
Advanced Genetics II is the second semester course of a 2-semester core series for first-year graduate students in the Genetics doctoral degree program. This series provides professional level training in genetic mechanisms and analysis as applied to genetic transmission, gene expression, forward and reverse genetics, population and quantitative genetics, molecular genetics, genomics, developmental genetics and epigenetics. Lectures are coupled with assigned readings of peer-reviewed literature that serve as the basis for graded in-class presentations and discussion, homework questions and essays. Prereq: GENETICS 701
Typically Offered: Spring

GENETICS 703 Topics in Eukaryotic Regulation Credits: 2
Design and interpretation of experiments addressing molecular mechanisms of eukaryotic regulation. For first year graduate students with firm knowledge of basic biochemistry, molecular biology and genetics. Prereq: Biochem/Genetics/Microbiology 612 and consent of instructor
Typically Offered: Occasionally

GENETICS 708 Methods and Logic in Genetic Analysis Credits: 3
Contemporary issues in genetic, developmental, cell, and molecular biology are addressed in a discussion format. Invited speakers give research lectures and reading material is taken from the primary literature. The discussion focuses on evaluating genetic approaches to biological problems. Prereq: Grad st, Genetics 701 or equiv
Typically Offered: Occasionally

GENETICS 731 Clinical Genetics Credits: 3
Clinical manifestation of human genetic disorders, practical principles of genetic counseling; for students preparing for genetic counseling and other health care professions, e.g., nursing, physician’s assistant, etc., in which they will encounter patients/families with genetically determined conditions, disorders, related problems, and prevention. Prereq: Genetics 466 or equivalent; Genetics 565 & 561 or 562; or consent of instructor. Some knowledge of basic medical terminology essential
Typically Offered: Occasionally

GENETICS 820 Foundations of Evolution Credits: 2
Through reading and analysis of the primary literature, this course will explore some of the most important themes and debates that have permeated evolutionary biology over the last 50 years. Students will read key papers related to each controversial topic, will debate the pros and cons of competing viewpoints, and will reflect on the relevance of the issues to contemporary evolutionary biology. Students will also write a paper that analyzes one topic in more detail. This course is intended for graduate students who plan to specialize in evolutionary biology, broadly construed. Prereq: Graduate or professional standing
Typically Offered: Fall

GENETICS 840 Regulatory Mechanisms in Plant Development Credits: 3
Molecular mechanisms whereby endogenous and environmental regulatory factors control development; emphasis on stimulus perception and primary events in the signal chain leading to modulated gene expression and cellular development; lecture. Prereq: Biochem 501 or 601 & Botany 500 or Biocore 301 & 323
Typically Offered: Occasionally
GENETICS 849 Genetic Epidemiology Credits: 3
This course will provide an introduction to genetic epidemiology. Topics will include a general overview of genetics and Mendelian and complex inheritance, as well as various elements of study design, including participant ascertainment; phenotype definition; biologic sample selection; genotyping, sequencing, and quality control; measurement of covariates, and choice of analytic methods. We will briefly discuss some of the original study designs and then focus on current study designs for the remainder of the class. Additional emerging topics will be briefly touched upon. Students will complete short homework assignments to enforce concepts learned during lectures, discuss journal articles.
Typically Offered: Every Other Fall

GENETICS 875 Special Topics Credits: 1 - 4
Special topics of current interest to graduate students. Prereq: Grad st and cons inst
Typically Offered: Occasionally

GENETICS 885 Advanced Genomic and Proteomic Analysis Credits: 3
With the availability of genome sequences and high-throughput techniques, organismal physiology can now be examined on a global scale by monitoring the behavior of all genes or proteins in a single experiment. This course will present modern techniques in genomics and proteomics, with particular focus on analyzing the data generated by these techniques. Course material will cover genomic sequencing, comparative sequence analysis, phylogeny construction and phylogenomics, transcription factor motif discovery, DNA microarray analysis, techniques in mass spectrometry, proteomic screening methods, and protein-interaction network analysis. In addition to lecture time, the course consists of a 2-h
Typically Offered: Every Other Fall

GENETICS 888 Public Health Genomics Credits: 1
Public health genomics uses knowledge gained from genetic and molecular research along with a consideration of ethical, legal, and social implications (ELSI) to prevent disease and improve the health of the population. Students enrolled in this course will be provided an introduction to public health genomics through a review of fundamental principles of genetics, followed by lectures and discussions on the use of genetic information in clinical and research settings and its implications for disease management and prevention. Students will also gain an awareness of policies that guide public health and will be able to discuss current ethical, legal, and social implications of these policies.
Typically Offered: Spring

GENETICS 915 Computation and Informatics in Biology and Medicine Credits: 1
Participants and outside speakers will discuss current research in computation and informatics in biology and medicine. This seminar is required of all CIBM program trainees. Prereq: Cons inst
Typically Offered: Occasionally

GENETICS 951 Seminar in Animal Breeding Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

GENETICS 957 Seminar-Plant Breeding Credits: 1
Prereq: Grad st
Typically Offered: Fall, Spring

GENETICS 990 Research Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Occasionally

GENETICS 993 Seminar in Genetics Credits: 0 - 1
Sections deal with various aspects of genetics: Drosophila, maize, immunogenetics, developmental genetics, or other special topics. Students may enroll in two or more sections if they wish. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HORTICULTURE
HORT 1 Cooperative Education/Co-op in Horticulture Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Hort 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

HORT 120 Survey of Horticulture Credits: 3
For the beginning student. Scientific basis for horticultural practices; scope of the field of horticulture; introduction to propagation, culture, management, improvement, storage, and marketing of flowers, fruits, ornamentals and vegetables. Prereq: None
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

HORT 121 Horticulture Colloquium Credits: 1
Overview of world, national, and regional horticulture plants and industries presented by various faculty. History and profiles of research advancing horticulture presented by department faculty. Prereq: Open to Fr
Typically Offered: Fall

HORT 227 Propagation of Horticultural Plants Credits: 3
Methods of propagation of herbaceous and woody plants, fundamental anatomical and physiological principles underlying sexual and asexual propagation of plants. Prereq: An intro course in botany. Open to Fr
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

HORT 234 Ornamental Plants Credits: 3
On-site identification and description, aesthetic qualities and uses, environmental requirements and adaptability of selected ornamental plants with emphasis on annuals, herbaceous perennials, and those used for interior design. Three credits, offered every Fall. Prereq: None
Typically Offered: Fall

HORT 261 Sustainable Turfgrass Use and Management Credits: 2
Sustainable use and management of turfgrass landscapes in urban and suburban environments, including home lawns, golf courses, and sports fields. Focus is on creating sustainable and attractive turfgrass landscapes through proper species selection, use of slow-release or organic fertilizer practices, and minimizing the use of pesticides and supplemental irrigation. Prereq: None
Typically Offered: Fall

HORT 262 Turfgrass Management Laboratory Credits: 1
Hands-on turf establishment, cool- and warm-season grass, seed and weed identification, chemical application, and turf cultivation techniques and equipment use, plus field trips to major league sport facilities and golf courses. Prereq: HORT 261 or concurrent enrollment
Typically Offered: Fall

HORT 263 Landscape Plants I Credits: 3
Field identification, landscape characteristics, uses, environmental requirements, adaptability of woody ornamental plants; their autumn and winter character. Prereq: An intro botany crse or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

HORT 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

HORT 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

HORT 309 Diseases of Trees and Shrubs Credits: 3
Fundamental disease concepts, pathogens and causal agents, diagnosis, and biologically rational principles and practices for management of diseases of trees and shrubs. For degree students and professionals. One extended lecture with discussion and one lab or field trip per week. Prereq: One semester of plant sci or consent of instructor
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
HORT 320 Environment of Horticultural Plants  Credits: 3
Fluctuations and regulations of temperature, light, water, carbon dioxide and pollutants in natural and controlled environments. Effects upon plant growth and development. Adaptive mechanisms. Significance of air ions, electromagnetic fields and other geophysical factors. Prereq: Crse in intro hort or intro bot
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HORT 326 Plant Nutrition Management  Credits: 3
Functions, requirements and uptake of essential plant nutrients; chemical and microbial processes affecting nutrient availability; diagnosis of plant and soil nutrient status; fertilizers and efficient fertilizer use in different tillage systems. Prereq: Soil Sci 230 or 301 and one of the following: Bot 100 or 130; Hort 120 or 122; Agron 100
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 328 Integrated Weed Management  Credits: 4
Prevalence and persistence of weeds, evaluation of competitive and allelopathic effects, methods and principles of control including proper identification of common weed species. Prereq: Agron 100 or intro crse in botany or cons inst
Typically Offered: Fall

HORT 332 Turfgrass Nutrient and Water Management  Credits: 3
Nutrient requirements of turfgrasses; nature of turfgrass response to fertilization; soil and tissue testing methodology and interpretation; irrigation scheduling; irrigation water quality; use of irrigation and fertilizer to minimize environmental impact; writing effective nutrient management plans. Prereq: Soil Sci/Hort/Agron 326
L&S Level: Intermediate  Typically Offered: Fall

HORT 334 Greenhouse Cultivation  Credits: 2
Principles of selection, production, handling, use of fruits, vegetables, flowers, and foliage plants grown indoors. One-day field trip required. Prereq: Intro botany course or consent of instructor
Typically Offered: Spring

HORT 335 Greenhouse Cultivation Lab  Credits: 1
Provide students with hands-on experience in and understanding of greenhouse cultivation. This course is the optional lab component of Horticulture 334 Greenhouse Cultivation. Prereq: Horticulture 334 or concurrent registration or consent of instructor
Typically Offered: Fall

HORT 338 Plant Breeding and Biotechnology  Credits: 3
Principles of transferring plant genes by sexual, somatic, and molecular methods and the application of gene transfer in plant breeding and genetic engineering to improve crop plants. Prereq: Botany 130 or Genetics 160 or Biocore 301 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 339 Plant Biotechnology: Principles and Techniques I  Credits: 4
Theoretical and practical training in plant biotechnology including molecular biology, protein biochemistry and basic bioinformatic techniques used in fundamental and applied research on plants. Valuable hands-on training to those interested in careers in biotechnology. Prereq: Bot/Zoo 152 or equiv & Chem 104 or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HORT 340 Plant Cell Culture and Genetic Engineering  Credits: 4
Theoretical and practical training in plant cell and tissue culture, and plant genetic engineering. Includes overview of current techniques, biosafety and regulatory requirements, and experimental design and analysis used in fundamental and applied research on plants. Valuable hands-on training to those interested in careers in biotechnology. Prereq: Botany 130 or Botany/Zoology/Biology 152 or Zoology 102, and Chemistry 104, 109, or 116
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 345 Fruit Crop Production  Credits: 3
Survey of fruit production, emphasizing commercial production of temperate fruits. Fruit origin, history, classification, physiology, genetics, harvest and postharvest handling. Prereq: Hort 122 or equiv. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
Plants provide not only the foundation of food, clothing, and shelter essential for human existence, but also some of the key raw materials for transcendence and abstraction through music, art, and spirituality. Since antiquity, we have co-evolved with plants and their derivative products, with each exerting a domesticating force on the other. It is, for example, impossible to think of our modern life without its plant-based accompaniments in the form of cotton, sugar, bread, coffee, and wood. Yet they are so ubiquitous we may forget they all derive from plants discovered, domesticated, bred, and farmed for millennia in a never-ending pursuit to improve our wellbeing. This course will explore the interactions between tropical plants and society. How plants are obtained, the systems used to raise the crops, the specific plants that are used and how we use these in the context of local and global markets, have a profound implication on food security, the resilience of the farming systems and the conservation of natural habitats. Class discussions will include reflections on the origins of the tropical crops, the roles of plants in our daily lives, and the effects of our daily choices on the environment, climate change, human health, water access, conflicts, poverty, and development. We will do an overview of tropical horticulture and survey some of the special topics in the context of current interest to undergrads. 

**HORT 350 Plants and Human Wellbeing** Credits: 2

This course is designed to provide students with information necessary to diagnosis and monitor corn, soybean, alfalfa and wheat for pests (insects, weeds, diseases) and nutrient deficiency symptoms including perspectives from Agronomy, Entomology, Horticulture, Plant Pathology and Soil Science. Proper soil and pest sampling information will be provided as will proper crop staging techniques which are essential for pest and nutrient management. Prereq: None

Typically Offered: Spring

**HORT 354 Diagnosing and Monitoring Pest and Nutrient Status of Field Crops** Credits: 1

This course is designed to provide students with information necessary to diagnosis and monitor corn, soybean, alfalfa and wheat for pests (insects, weeds, diseases) and nutrient deficiency symptoms including perspectives from Agronomy, Entomology, Horticulture, Plant Pathology and Soil Science. Proper soil and pest sampling information will be provided as will proper crop staging techniques which are essential for pest and nutrient management. Prereq: None

Typically Offered: Spring

**HORT 360 Genetically Modified Crops: Science, Regulation & Controversy** Credits: 2

Explores how and why genetically modified (GM) crops are created and their regulation at the federal and state level. Through case studies, students will learn about the impacts of GM crops and critically evaluate arguments both for and against their use. Readings and discussion introduce students to the complex economic, cultural, and political issues surrounding GM crops. Prereq: BIOLOGY/BOTANY 130, BIOLOGY/BOTANY/ZOOLOGY 151, BIOCORE 381, GENETICS 160, GENETICS 466 or BIOLOGY/ZOOLOGY 101

L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**HORT 370 World Vegetable Crops** Credits: 3

An overview of the importance of fresh and processed vegetables worldwide. Vegetable origin, history, classification, culture, marketing, physiology, genetics, handling, quality, significance in world cultures and diets. Prereq: A course in horticulture and a course in biology. Open to Freshmen

L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**HORT 372 Colloquium in Organic Agriculture** Credits: 1

Colloquium in which faculty, regional professionals, local organix farmers and students will present and discuss topics relevant to history, marketing, economics, production and social context of organic and sustainable agriculture. Prereq: At least So st

L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**HORT 374 Tropical Horticulture** Credits: 2

Fall semester colloquia on tropical ecology and crops followed by two-week long winter break (January) field trip to Costa Rica and Nicaragua. Prereq: Sophomore standing

L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**HORT 375 Special Topics** Credits: 1 - 4

Specialized subject matter of current interest to undergrads. Prereq: Cons inst

Typically Offered: Fall, Spring, Summer

**HORT 376 Tropical Horticultural Systems** Credits: 1

This course will highlight the interactions between tropical plants and society. How plants are obtained, the systems used to raise the crops, the specific plants that are used and how we use these in the context of local and global markets, have a profound implication on food security, the resilience of the farming systems and the conservation of natural habitats. Class discussions will include reflections on the origins of the tropical crops, the roles of plants in our daily lives, and the effects of our daily choices on the environment, climate change, human health, water access, conflicts, poverty, and development. We will do an overview of tropical horticulture and survey some of the so
HORT 378 Tropical Horticultural Systems International Field Study Credits: 2
This international field study will meet during the winter intercession in a tropical country in Central America. We will reflect on the role of plants in our daily lives and the effects that our daily choices have on the environment, human health, conflicts, poverty, and development. This course will provide an opportunity to develop a holistic appreciation of horticulture by highlighting the interactions between plants and society. We will discuss some of the social, scientific and environmental challenges that conventional, sustainable and organic horticulture practices face in the production, marketing, and use of tropical crops. The field study will provide an opportunity to contextualize.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st & cons supervising inst, advisor, and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HORT 400 Study Abroad in Horticulture Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

HORT 410 Undergraduate Seminar Credits: 1
Prereq: Horticulture major with at least 5 credits in Hort, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

HORT 461 Advanced Turfgrass Management and Physiology Credits: 3
Interacting effects of environmental stresses on turfgrass physiology/growth in relation to management practices. Discussion of new and conventional management systems. Use of biotechnology and plant breeding for improving turfgrass. Prereq: Hort 261 & intro botany crse
Typically Offered: Fall

HORT 500 Molecular Biology Techniques Credits: 3
The objective of the course is to familiarize students with recombinant DNA technology. This will be accomplished through lectures as well as hands on exposure to methodologies used in molecular biology laboratories. Prereq: Biochem 501 or 621 or Genetics 466 or Bact 303, 304 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 501 Principles of Plant Breeding Credits: 3
Principles involved in breeding and maintaining economic crops; factors affecting the choice of breeding methods; alternative approaches through hybridization and selection. Prereq: Intro crse in genetics, 1 yr biol
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 502 Techniques of Plant Breeding Credits: 1
Lab and field techniques used in breeding and maintaining economic crops. Prereq: An intro crse in genetics & 1 yr of biology
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 524 Urban Soil and Environment Credits: 3
Many environmental issues related to urbanization are derived from the manipulation of soil. By coupling contemporary literature in urban soils with soil science, students will be able to evaluate environmental issues within the urban environment and provide new ways of remediating their impact. Prereq: Soil Sci 301 or 230
Typically Offered: Spring

HORT 550 Molecular Approaches for Potential Crop Improvement Credits: 3
Introduction of basic concepts of plant molecular biology and molecular techniques in current use. Topics include: organization and regulation of plant genes, gene cloning and analysis, transformation systems for plants, and molecular techniques for crop improvement. Prereq: Biochem 501 and Genetics 466 or equiv courses
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
HORT 555 Plant Functional Genomics and Bioinformatics Credits: 2 - 3
A survey of the underlying technologies of genomic research with a special emphasis on their applications in plant science. Provides students with a deeper understanding of the many public resources and databases being generated by large-scale genomics projects. Prereq: Grad st; undergrads with Genetics 466 or equiv or cons inst
Typically Offered: Spring

HORT 561 Introductory Cytogenetics Credits: 2 - 3
Mitosis, meiosis, variations in chromosome structure and number, cytological aspects of hybridity and apomixis; chromosomes as they affect breeding behavior. Prereq: Genetics, Botany, Zoology 466 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 571 Statistical Methods for Bioscience I Credits: 4
Descriptive statistics, distributions, one- and two-sample normal inference, power, one-way ANOVA, simple linear regression, categorical data, non-parametric methods; underlying assumptions and diagnostic work. Prereq: College algebra: Grad st or cons inst
General Education: QR-B  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HORT 572 Statistical Methods for Bioscience II Credits: 4
Continuation of Forestry 571. Polynomial regression, multiple regression, two-way ANOVA with and without interaction, split-plot design, subsampling, analysis of covariance, elementary sampling, introduction to bioassay. Prereq: Stats/Forestry/Hort 571
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HORT 626 Mineral Nutrition of Plants Credits: 3
Essential and beneficial elements, solutions and soil as nutrient sources, rhizosphere chemistry, nutritional physiology, ion uptake and translocation, functions of elements, nutrient interactions, genetics of plant nutrition. Prereq: Botany 350 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HORT 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring, Summer

HORT 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Honors program candidacy & Hort 681
Typically Offered: Fall, Spring, Summer

HORT 699 Special Problems Credits: 1 - 4
Prereq: Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HORT 799 Practicum in Horticulture Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HORT 811 Biometrical Procedures in Plant Breeding Credits: 3
Use of statistical methods to facilitate improvements in quantitative traits of cultivated plants. Prereq: Intro crses in genetics & stat
Typically Offered: Fall

HORT 812 Selection Theory for Quantitative Traits in Plants Credits: 2
Discuss advanced topics in selection theory and the utilization of molecular markers in selection. Prereq: AGRONOMY/HORT 811
Typically Offered: Occasionally

HORT 850 Advanced Plant Breeding Credits: 3
Concepts in improvement of major crop species. Historically important breeding methods and new approaches. Lectures and discussion. Prereq: Agron/Hort 338 or 501 or cons inst
Typically Offered: Occasionally
HORT 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

HORT 910 Seminar Credits: 1
Prereq: Grad st
Typically Offered: Spring

HORT 957 Seminar-Plant Breeding Credits: 1
Prereq: Grad st
Typically Offered: Fall, Spring

HORT 990 Research Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Fall, Spring, Summer

INTERDIS COURSES (C A L S)

INTER-AG 2 International Internship in Sciences Credits: 1
For students undertaking internships in international locations; focus on pre-internship preparation and post internship activities; internships prepare students for graduate school or careers in applied science. Prereq: Sophomore or Junior standing; consent of instructor
Typically Offered: Fall, Spring, Summer

INTER-AG 150 Ways of Knowing Credits: 1
Freshmen are exposed to a variety of scholarly topics from outstanding faculty campus-wide as well as small group seminars led by faculty. Students are encouraged to explore the possibility of a research experience in their degree program. Prereq: Open to Fr only
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTER-AG 152 Ways of Knowing: Medicine and Society Credits: 1
Sophomores are exposed to a variety of scholarly topics on subjects dealing with medicine and society by campus-wide faculty. Discussions led by faculty who are primary care practitioners. Students are encouraged to explore the possibility of a research experience in their degree program. Prereq: Open to Sophomores only
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTER-AG 155 Issues in Agriculture, Environment, and Life Sciences Credits: 1
Explore important issues in the application of science that cut across all majors in the College of Agricultural and Life Sciences, and that are critical for society in coming decades; help students develop academic skills and explore majors and careers. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTER-AG 165 Introduction to International Issues in Agricultural & Life Sciences Credits: 1
Introduction to major international issues in the application of science that will be critical in the next half-century in this national and the world and will help students identify and explore international interests in an academic major and a career. Prereq: Fr or So st, or cons of instr
Typically Offered: Fall, Spring

INTER-AG 175 WISE Seminar Credits: 1
Weekly seminar/discussion for the Women in Science and Engineering (WISE) learning community. Speakers drawn from all fields of math, science, and engineering on campus. Students meet to learn about research on campus and to discuss the impact of research in their daily lives. Prereq: Cons inst. Preference given to residents of the WISE learning community. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTER-AG 250 Undergraduate Research Experience Credits: 1 - 3
Participation in research or creative endeavor led by faculty or instructional staff and in undergraduate Research Scholars Program. This course may also include participation in research discussion groups, critiques of readings, and preparation of written or oral reports. Prereq: Freshman or Sophomore standing, admission to the Undergraduate Research Scholars Program, and consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
INTER-AG 288 Introduction to Undergraduate Research Credits: 1
Student develops a research proposal with guidance by a faculty mentor (applications due in Ag Hall by early April). Student also receives individualized instruction on electronic search of literature by the library staff and critical writing skills by the Writing Center staff. Prereq: Stdt must be in CALS Honors Prgm & be either a So or Jr. Not open to Fr
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTER-AG 312 Leadership Seminar Credits: 1
Develop personal approach to leadership, gain self-awareness, analyze ethical issues, explore organizational and group dynamics, examine skills needed to lead organizations and communities.
Typically Offered: Fall

INTER-AG 350 World Hunger and Malnutrition Credits: 3
Hunger and poverty in developing countries and the United States. Topics include: nutrition and health, population, food production and availability, and income distribution and employment.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

INTER-AG 375 Special Topics Credits: 1 - 4
Subjects of current interest to undergraduates. Prereq: Cons inst
Typically Offered: Fall, Spring

INTER-AG 388 CALS Honors Interdisciplinary Junior Seminar Credits: 1
Basic elements of experimental design and conduct in biological sciences, social sciences, natural resources, animal sciences and plant sciences are explored in a seminar format. This course is required for all honors students enrolled in the College of Agricultural and Life Sciences. Prereq: Honors or cons inst
Typically Offered: Fall

INTER-AG 421 Global Health Field Experience Credits: 1 - 4
Undergraduate global health field experiences address a broad range of health topics including nutrition, primary health care, water and sanitation, climate change, sustainable agriculture, and economic development. These field experiences take place in sites around the world including locations in Africa, Asia, Latin America, Europe, and the United States. Engaged learning will include participation in applied public health activities and service learning projects with communities and partner organizations. Students will gain knowledge about health and disease and explore interdisciplinary approaches to health. Field experiences are designed to meet the requirement for the Undergraduate Cert
Typically Offered: Spring, Summer

INTER-AG 488 Honors Research Colloquium Credits: 1
This will be a faculty-led colloquium covering such topics as research ethics, possible societal impact of scientific results, and career choices and their implications. Communication of technical information will also be emphasized. Prereq: Participant in CALS honors prgm or cons inst
Typically Offered: Fall

INTER-AG 875 Special Topics Credits: 2 - 3
Subjects of current interest to graduates. Prereq: Grad st and cons inst
Typically Offered: Occasionally

LANDSCAPE ARCHITECTURE

LAND ARC 1 Cooperative Education/Co-op in Landscape Architecture Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Land Arc 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

LAND ARC 201 Introductory Landscape Architecture Studio Credits: 2
Introduction to the techniques of landscape design, planning, and management through studio exercises.
Prereq: Land Arc 250 or con reg
Typically Offered: Fall, Summer
LAND ARC 250 Survey of Landscape Architecture Design Credits: 3
Principles of landscape and environmental design; incorporates elements of landscape planning and management. Provides background to the ideas and personalities shaping landscape architecture in America. Prereq: Open to Freshmen
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LAND ARC 260 History of Landscape Architecture Credits: 3
A critical and historical analysis of our design of outdoor space. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

LAND ARC 261 Principles of Landscape Architecture Design and Graphics Credits: 4
Basic principles in the design of landscapes to aid the student in developing individual capacities and approaches to designing. Principles of graphic communication media and development of practical graphic skills. Prereq: Admission to ALA st or consent of instructor
Typically Offered: Fall

LAND ARC 262 Landscape Inventory and Evaluation Methods Credits: 4
Inventory and evaluation of physical, biological, visual, and cultural site resources to determine their potential for enhancement of human activities and their sensitivities to use-impact. Emphasis on information sources, data gathering methods and analysis techniques with projects to develop proficiency. Prereq: Land Arc 250 or consent of instructor
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

LAND ARC 263 Landscape Plants I Credits: 3
Field identification, landscape characteristics, uses, environmental requirements, adaptability of woody ornamental plants; their autumn and winter character. Prereq: An intro botany crse or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LAND ARC 264 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

LAND ARC 270 Landscape Architecture Workshop Credits: 1 - 2
Lectures, projects, and studio exercises covering topical areas of landscape architecture. Prereq: Land Arc 250 or cons inst. Open to non-majors
Typically Offered: Fall, Spring, Summer

LAND ARC 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

LAND ARC 299 Independent Studies Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

LAND ARC 309 Diseases of Trees and Shrubs Credits: 3
Fundamental disease concepts, pathogens and causal agents, diagnosis, and biologically rational principles and practices for management of diseases of trees and shrubs. For degree students and professionals. One extended lecture with discussion and one lab or field trip per week. Prereq: One semester of plant sci or consent of instructor
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LAND ARC 312 Graphics for Designers Credits: 3
Principles of graphic communication media, and development of practical graphic skills to enhance the professional student's ability to communicate with lay and professional audiences. Prereq: Concurrent registration in a design course
Typically Offered: Spring
LAND ARC 321 Environment and Behavior Studio - Designing Health Promoting Environments Credits: 3
This course is a design studio in with an emphasis on the application of design principles aimed at promoting people's health and wellbeing in the built environment. Prereq: LAND ARC 201, 261, 262, 312 and DS 221
Typically Offered: Spring

LAND ARC 351 Housing and Urban Design Credits: 4
An application of landscape design principles and problem-solving methods to housing and urban issues. Introduction to physical site design, land-use controls, and the relationship between housing and associated land uses. Projects focus on the central city and/or suburbs. Prereq: Land Arc 261 and 365 or concurrent registration
Typically Offered: Spring

LAND ARC 353 Landscape Architectural Technology I Credits: 3
Problems dealing with the comprehension and modification of the earth's surface including landform design, preparation of grading plans, earthwork calculations. Prereq: Math 112 and 113 (or equivalent) and CEE 450
Typically Offered: Spring

LAND ARC 354 Landscape Architectural Technology II Credits: 3
Problems dealing with construction detailing, including roadways, drainage structures, construction materials, cost estimating, specifications and working drawings. Prereq: Land Arc 353
Typically Offered: Fall

LAND ARC 356 Sustainable Residential Construction Credits: 3
Properties and use of building materials, framing systems, HVAC systems, code requirements, conservation of natural resources in building construction and operation. Prereq: MATH 112, 114, or 171
Typically Offered: Spring

LAND ARC 361 Wetlands Ecology Credits: 3
Types, origins, settings, and structure of wetlands. Physical, biological, and cultural values, uses and assessments. Physical and biological characteristics and dynamics. Protection, management and restoration. Field trips, literature review, term paper, and personal observations required. Prereq: Upper class st; basic college-level biology or equiv (such as relevant physical sciences)
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LAND ARC 365 Planting Design I Credits: 3
Fundamentals of planting composition with emphasis on visual consideration of ecological relationships. Lectures enhanced by student sketches, plans, and models. Prereq: Land Arc 262, 263, and 353 or consent of instructor
Typically Offered: Fall

LAND ARC 371 Introduction to Environmental Remote Sensing Credits: 3
Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to study the environment. Includes physical processes of electromagnetic radiation, data types and sensing capabilities, methods for interpretation, analysis and mapping, and applications. Prereq: Math 114 & Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LAND ARC 372 Intermediate Environmental Remote Sensing Credits: 3
Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to remote sensing of the environment. Includes transforms, image correction, classification algorithms and change detection, with emphasis on applications for land use planning and natural resource management. Prereq: Envir St 301 or consent of instructor, sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

LAND ARC 375 Special Topics Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring

LAND ARC 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st and cons supervising inst, advisor, and program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
LAND ARC  400 Study Abroad in Landscape Architecture  Credits: 1 - 6  Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq:  Current registration in a U.W.-Madison Study Abroad Program  Typically Offered: Fall, Spring, Summer

LAND ARC  451 Open Space Planning and Design  Credits: 3  Form-giving design of open spaces in urban and rural settings and management for amenity and functional values. Integration of human activity requirements and experiences with physical and natural site features. Prereq:  Land Arc 351, 354, 365  Typically Offered: Spring

LAND ARC  462 Regional Design  Credits: 3  Exploration of broad scale design issues to develop synthesis and design skills. Uses spatial form and bioregional cultural, ecological and environmental concepts to solve land use and conservation problems. Emphasizes sustainable design. Introduces public and non-profit design tools. Prereq:  Land Arc 351, 354, 365, 451 or Grad st and cons inst  Typically Offered: Spring

LAND ARC  463 Evolution of American Planning  Credits: 3  The nature and cultural significance of contemporary methods for the systematic formulation of public policies for community, metropolitan, and state development through comprehensive planning. Historic roots, recent trends and new directions in American planning concepts, institutions and professional specializations. Prereq:  Jr st  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LAND ARC  550 Professional Practice in Landscape Architecture  Credits: 3  Introduction to operational procedures used in professional offices ranging from private landscape architectural design firms to public agencies. Practical experience project organization and management including the preparation of project manuals, legal documents, and construction contracts. Prereq:  Land Arc 351 & 451 & con reg in Land Arc 610  Typically Offered: Fall

LAND ARC  551 Senior Project in Landscape Architecture  Credits: 4  Problems in landscape design, planning and management for which students take the initiative in their definition and solution. Provides an opportunity for synthesis of the knowledge, skills, and approaches learned in previous course work. Prereq:  Land Arc 610  General Education:  COM B  Typically Offered: Spring

LAND ARC  556 Remote Sensing Digital Image Processing  Credits: 3  Techniques of enhancement and quantification of remote sensing imagery. Emphasis on processing and analyzing data gathered by airborne and satellite sensors. Techniques to quantitatively analyze data from photography, electro-optical scanners, satellite systems, and radar and passive microwave systems. A 5-week practicum with applications to: agriculture and forestry, geology and soils, water quality, and urban and regional planning. Prereq:  Civ Engr/Envir St/Forestry 303 or authorization  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

LAND ARC  565 Principles of Landscape Ecology  Credits: 2  Landscape ecology emphasizes the importance of spatial patterns at broad scales. Concepts and applications are emphasized, especially for seniors and graduate students in applied natural resource fields. The course is also a prerequisite for Zoology/Forest Ecology 665, Advanced Landscape Ecology. Lecture format with discussion. Prereq:  Botany/Zoology/Forest 460, or Forest 550, a crse in stats, & cons inst  L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LAND ARC  610 Landscape Architecture Seminar  Credits: 1 - 2  Environmental problems and issues related to project, urban or regional scale. Prereq:  Sr st  Typically Offered: Fall

LAND ARC  622 Applications of Geographic Information Systems in Planning  Credits: 3  Explores planning-related GIS data, applications, analytical tools, and issues. Prereq:  Intro GIS course or experience using GIS is a pre-requisite. Grad st or cons inst. Priority given to Urb R Pl stdts  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
LAND ARC 630 Geodesign Foundations Credits: 3
This online lecture, discussion and lab course is designed specifically for students enrolled in the Capstone Certificate in Geodesign. Geodesign is the integration of design and planning, the social and economic sciences, the physical and natural sciences, human values and public participation, using geographic information systems (GIS) with the goal of creating a better, more sustainable and resilient future. This course focuses on understanding the history, leaders, trends, and various frameworks of Geodesign. This introduction to Geodesign will cover a broad body of knowledge that includes: historical foundations of Geodesign; critically evaluate Geodesign frameworks; relationship between
Typically Offered: Fall

LAND ARC 631 Geodesign Methods Credits: 3
This course focuses on understanding and application of methods and technology used in the Geodesign framework using the following models: representation, process, evaluation, change, impact, and decision. Students write a methods focused, preliminary project proposal. Geodesign methods and technology are vast and continually evolving, but will be limited to industry standards: Esri ArcGIS Desktop, Esri CityEngine, Trimble SketchUp, and various open-source alternatives as needed (i.e. QGIS, Grass, etc). Students will be exposed to and may use, at their own discretion in coordination with the instructor, other open-source alternatives on individual assignments when software and methods choices are
Typically Offered: Fall

LAND ARC 633 Geospatial Approaches to Conservation and Adaptation Credits: 2
Students will explore and use applications of GIS particularly related to landscape ecology, environmental analysis, and conservation design. Engaged students will: a. learn/practice how to solve spatial environmental questions; b. proficiently apply design thinking toward landscape conservation and adaptation solutions. Prereq: Land Arc 630 and Land Arc 631 and admission to the Capstone Certificate in Geodesign
Typically Offered: Spring

LAND ARC 634 Geodesign Capstone Project Credits: 3
This capstone course is the culmination of the yearlong Geodesign Certificate Program. It is designed for students to demonstrate the skills and knowledge that they have acquired in the four prerequisite courses by resolving a "real world" geodesign problem. Students will work with their advisors on projects of their own choosing and as agreed upon by their advisors and the program coordinator and director. Prereq. Land Arc 630, Land Arc 631, Land Arc 633, and Land Arc 671 and admission to the Capstone Certificate in Geodesign
Typically Offered: Summer

LAND ARC 639 Culture and Built Environment Credits: 3
The course explores cultural values embedded in buildings through understanding physical configurations, social organizations, practiced/symbolic/representational aspects of buildings. The course covers a wide range of cultures and the built environments they produce including examples from the Americas, the Middle East, as well as those of the many ethnic minorities in the U.S. Prereq: Junior standing
Ethnic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LAND ARC 651 Plant Community Restoration and Management Workshop Credits: 4
Formulation of plant community restoration and management plans; including the preparation of planting plans and working drawings for implementation. Classroom and practical exposure to natural areas management tools, including prescription prairie fire. Prereq: Land Arc 262 or Grad st
Typically Offered: Spring

LAND ARC 666 Restoration Ecology Credits: 3
Philosophy and techniques in the use of native vegetation for landscape purposes. Application of current knowledge in restoration and maintenance of native plant communities. Lecture, lab and field. Prereq: Land Arc 365 or cons inst
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit  Typically Offered: Fall

LAND ARC 667 Field Study: Native Plant Communities Credits: 3
Field analysis and interpretation of the vegetational composition, aesthetic quality and effects of disturbance within a variety of native Wisconsin plant communities. Field work, readings and discussions. Prereq: Plant identification course(s) and cons inst
Typically Offered: Summer
LAND ARC 670 Adaptive Restoration Lab Credits: 2
Field experience in restoration as an adaptive process involving field experimentation; baseline data collection on restoration sites; design of experiments to advance restoration science; quantitative evaluation of restoration outcomes. Analysis and interpretation of data; development of a team report. Prereq: a crse in ecology & a crse in stats, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LAND ARC 671 Geodesign for Sustainability and Resiliency Credits: 3
This course explores the Geodesign concepts and analysis methods can support sustainability and resiliency. A brief history and development of the sustainability and resiliency movements establishes context, motivation and priorities for Geodesign. Characteristics of public participation frame the role of geodesign to engage and empower the community to plan for sustainability and resiliency. Discovery of issues, spatial data and analyses follows a conceptual and geographical trend from local to global scales and urban to rural localities. These include population density, land cover change, urban growth/sprawl, transportation, walkable neighborhoods, water resources, green infrastructure, Typically Offered: Spring

LAND ARC 675 Historic Preservation Planning Field Workshop Credits: 1 - 4
Identification of Wisconsin's rural historic and cultural features and the planning alternatives available for their preservation and utilization. Lecture, lab and field. Prereq: Consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LAND ARC 677 Cultural Resource Preservation and Landscape History Credits: 3
A survey of cultural resource preservation, landscape history and approaches to a more comprehensive framework for environmental management. Prereq: At least 2 courses in history or the social sciences, or cons inst
Typically Offered: Fall, Spring

LAND ARC 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring, Summer

LAND ARC 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Land Arc 681
Typically Offered: Fall, Spring, Summer

LAND ARC 691 Senior Thesis Credits: 4
Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

LAND ARC 692 Senior Thesis Credits: 4
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

LAND ARC 695 Applications of Geographic Information Systems in Natural Resources Credits: 3
Course has four components: 1) Detailed review of GIS concepts; 2) Case studies; 3) GIS implementation methods; 4) Laboratory to provide "hands-on" GIS experience. Prereq: Land Arc/Envir St/Civ Engr 655 or Geog 377 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LAND ARC 699 Special Problems-Landscape Architecture Credits: 1 - 5
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LAND ARC 710 Theories of Landscape Change Credits: 2
Theories of landscape change in the arts and sciences. Contributions of the scientific method and humanistic frameworks to major issues in landscape architecture. Prereq: Grad st or cons inst
Typically Offered: Occasionally
**LAND ARC 720 Critical Inquiry into Landscape Design Expression** Credits: 2
Normative design theory as it relates to historical and contemporary aesthetic expression in landscape design. Review of critical theory and meaning associated with a broad landscape architecture typology. Prereq: Grad st or cons inst
Typically Offered: Occasionally

**LAND ARC 740 Research in Landscape Architecture** Credits: 3
Overview of research: Logic and language of the process, substantive issues, criticism of research literature, developments of detailed proposals. Prereq: Grad st in land arch or cons inst
Typically Offered: Occasionally

**LAND ARC 764 Dimensions of Material Culture** Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di
Typically Offered: Occasionally

**LAND ARC 866 Seminar in Natural Plant Community Restoration and Management** Credits: 1
Student presentations on topics related to plant community management and restoration. Prereq: Cons inst
Typically Offered: Occasionally

**LAND ARC 920 Regional Design Workshop** Credits: 2 - 3
Development and application of a systematic approach to analysis and design at macro- and micro-scales within a regional context. Prereq: Grad st & cons inst
Typically Offered: Occasionally

**LAND ARC 940 Graduate Seminar** Credits: 1 - 2
Individual research, group discussion and workshop covering selected problems relating to the environment and landscape architecture. Prereq: Graduate or professional standing
Typically Offered: Occasionally

**LAND ARC 990 Research** Credits: 1 - 12
Prereq: Grad st and cons inst
Typically Offered: Occasionally

**LAND ARC 999 Independent Studies** Credits: 1 - 3
Opportunity to explore concepts or issues of particular interest to the student. Prereq: Grad st & cons inst
Typically Offered: Occasionally

**LIFE SCIENCES COMMUNICATION**

**LSC 1 Cooperative Education/Co-op in Life Sciences Communication** Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Life Sciences Communication 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

**LSC 100 Science and Storytelling** Credits: 3
Fundamentals of effective written and spoken communication. Develops skills in gathering and evaluating information, writing research papers and other documents, and preparing and delivering oral presentations. Prereq: Students may enroll for only one Communications A course taken in residence
General Education: COM A L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**LSC 111 Science and Technology Newswriting** Credits: 3
Principles of journalism and essentials of journalistic writing applied to agriculture, natural resources, science, health and related topics. Prereq: Sophomore standing
General Education: COM B Typically Offered: Fall, Spring
LSC 212 Introduction to Scientific Communication Credits: 3
Writing effective science digests, proposals, newsletters, and trade magazine articles for agriculture, natural resources, health and science-related topics. Prereq: Sophomore standing
General Education: COM B  Typically Offered: Fall, Spring

LSC 250 Research Methods in the Communication Industry Credits: 3
Introduction to research methods in the communication industry. Overview of all stages of the research process (survey, focus groups, etc.) and of translating data into reports for expert and lay audiences and into effective campaign strategies. Prereq: Sophomore Status
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LSC 251 Science, Media and Society Credits: 3
Introduction to communication at the intersection of science, politics and society. Overview of the theoretical foundations of science communication and their relevance for societal debates about science and emerging technologies. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LSC 270 Communication in Life Science Industries Credits: 3
Techniques of achieving clarity, brevity and effectiveness in the life sciences communication industry: communication planning, preparation and examination for internal and external life sciences industry audiences. Prereq: L SC COM 100 or L SC COM 111 or L SC COM 212 or declared student in the Business Management for Agricultural and Life Sciences Certificate
Typically Offered: Spring

LSC 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Program & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring

LSC 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen or Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

LSC 314 Introduction to Digital Video Production Credits: 3
Principles and techniques of digital documentary and informational video production. Video styles and subject matter treatment analyzed. Information gathering, videography, scripting, producing, and editing techniques. Prereq: Sophomore standing
Typically Offered: Spring

LSC 320 Feature Writing Credits: 3
Advanced writing techniques and in-depth article development, emphasizing agriculture, environment, science, and health topics. Prereq: L SC COM 111 or L SC COM 212
Typically Offered: Fall

LSC 332 Print and Electronic Media Design Credits: 3
Principles and techniques of effective layout with desktop publishing software for specialized print and electronic publications. Prereq: Sophomore standing
Typically Offered: Fall, Spring, Summer

LSC 350 Visualizing Science and Technology Credits: 3
Introduction to the basic principles in the visual communication of science information. Principles of design, perception, cognition as well as the use of technologies in the representation of science in the mass media will be explored through illustrated lectures and written critique. Prereq: Sophomore standing. Open to all majors
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LSC 360 Information Radio Credits: 3
Radio writing, editing, information gathering, planning, voicing, and evaluation using digital recording and editing equipment. Students write, produce and voice newscasts, advertisements, public service announcements, interviews, and features. Final project: team produce a radio program with science or consumer theme. Prereq: LS SC COM 100, 111 or 212
General Education: COM B  Typically Offered: Fall, Spring
LSC 375 Special Topics Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

LSC 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: Cons supervg inst, advisor, & intrshp progm coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LSC 400 Study Abroad in Agricultural Journalism Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

LSC 430 Communicating Science with Narrative Credits: 3
Understand how narrative theory influences audiences in presenting science; analyze the role of metaphor in communicating science; integrate effective writing structures for explaining complex science; learn writing and editing skills for best practices in science communication. Prereq: (LSC 111 or LSC 212) and LSC 251
General Education: COM B  Typically Offered: Fall

LSC 431 Advertising in the Life Sciences Credits: 3
Using marketing communication principles to make advertising decisions for agricultural inputs and food products; creating print, radio, television and multi-media advertisements. Prereq: So st
Typically Offered: Fall

LSC 432 Social Media for the Life Sciences Credits: 3
Explores social media communication and tools specific to the life sciences, and will be centered on building the student's social media presence. Coursework will include a variety of readings from peer-reviewed papers, marketing, business and communication journals. Prereq: So st
Typically Offered: Spring

LSC 435 Theory and Practice of Integrated Marketing Communication Credits: 3
This course provides practical insight into integrated marketing communication through analysis of contemporary developments in the marketplace together with theoretical background through readings from published scholarly research. It emphasizes information-seeking, oral presentation skills, and is writing-intensive. Prereq: Sophomore standing
Typically Offered: Fall, Spring

LSC 440 Contemporary Communication Technologies and Their Social Effects Credits: 3
Explores the growth of the information industry. Looks at the characteristics and spread of new communication technologies. Evaluates their social, economic and political effects. Attention is given to rural-urban differences. Prereq: Sophomore standing
Typically Offered: Fall, Spring

LSC 444 Native American Environmental Issues and the Media Credits: 3
Explores public understanding and media coverage of Native American environmental issues including treaty rights, air and water quality, land-into-trust, and sacred sites. Analysis of organizational and structural constraints of media coverage relating to issues of sovereignty and intergovernmental relationships. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring

LSC 450 Documentary Photography for the Sciences Credits: 3
Trains students in visual storytelling and how to think photographically for communicating science, health and the environment. Students study the contributions of social documentary photography while assignments create a portfolio of documentary photography, and final team projects create effective still-image video stories that employ intellectual property rights. Prereq: L SC COM 350
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
LSC 477 NAMA Project: Agri-Marketing Strategy and Implementation Credits: 2
A full-scale marketing campaign culminating in a national student competition for National Agricultural Marketing Association during their annual convention held every spring. Development of campaign plan includes brand identity, associated visuals, market research, strategic communication, competitive analysis, presentation skills, and learning how to work as a team toward a common goal. Prereq: Consent of Instructor required to enroll
Typically Offered: Spring

LSC 505 Publications Editing Credits: 3
Principles and techniques for effective editing and production of specialized information publications and documents. Prereq: Junior standing & Ag Journ 111 or equivalent or consent of instructor
Typically Offered: Fall, Spring

LSC 515 Public Information Campaigns and Programs Credits: 3
Design, production and evaluation of communication programs aimed at informing and educating publics about agricultural, environment, science, health and human ecology issues. Prereq: Senior standing and declared in Life Sciences Communication
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LSC 532 Web Design for the Sciences Credits: 3
This class gives students an opportunity to design websites that focus on agricultural, life and social sciences. It covers characteristics of web users, science information goals for websites, needs assessment, search strategies, formative evaluations, legal issues. Prereq: L SC COM 111 or L SC COM 212
Typically Offered: Fall, Spring

LSC 560 Scientific Writing Credits: 3
This course is intended for students in science disciplines to learn how to communicate and translate scientific research for a general audience. Prereq: Senior or graduate standing. Not open to students declared in Life Sciences Communication
General Education: COM B  Typically Offered: Occasionally

LSC 614 Advanced Video Production Credits: 3
An advanced digital video production course. Students will receive advanced instruction in producing, videography, scripting, and editing digital video. Prereq: L Sc Com 314
Typically Offered: Spring

LSC 616 Mass Media and Youth Credits: 3
Children's and adolescents' use of mass media and mass media effects on them. Particular attention is given to changes in comprehension and other cognitive activities that give insights into media use and effects. Prereq: JOURN 202, COM ARTS 325, HDFS 362, L SC 251
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LSC 617 Health Communication in the Information Age Credits: 3
This course will examine the role of communication in health, how the revolution in information technology has affected health communication, and the assumptions about health information and communication that drive current efforts to use technologies. Prereq: Journ 565 or equivalent
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LSC 625 Risk Communication Credits: 3
Examines risk as a central concept in the communication process through case studies from science, technology, environment, and health. Prereq: Jr or Grad st and L Sc Com 250, L Sc Com 251, or equiv, or cons inst
Typically Offered: Spring

LSC 640 Case Studies in the Communication of Science and Technology Credits: 3
Examination of social scientific research addressing characteristics of science, public understanding of science, science news, and relationships between scientists and journalists. Application of this knowledge to several case studies examining the function of communication in specific scientific or technical contexts. Prereq: Senior standing and declared in Life Sciences Communication or declared in Life Sciences Communication Professional Master's program
Typically Offered: Occasionally
LSC 660 Data Analysis in Communications Research Credits: 3
How to use chi-square, analysis of variance, simple and multiple correlation and regression analysis, and various nonparametric tests in communication research. Prereq: Senior or Grad standing
Typically Offered: Occasionally

LSC 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring, Summer

LSC 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Ag Journ 681
Typically Offered: Fall, Spring, Summer

LSC 699 Special Problems Credits: 1 - 4
Prereq: Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LSC 700 Colloquium in Life Sciences Communication Credits: 1
Gives graduate students exposure to the many faculty across the UW campus who work on communication issues within their own fields. Weekly speakers represent diverse departments and other units; many will focus on science, health technology and related issues. Prereq: Grad st
Typically Offered: Occasionally

LSC 720 Introduction to Communication Theory and Research Credits: 3
Introduction of concepts fundamental to conduct of social scientific research, overview of history and structure of field of communication, survey of major theoretical perspectives on mass communication at both micro and macro levels, with treatment of micro-macro and mass-interpersonal integration. Prereq: Grad st
Typically Offered: Occasionally

LSC 806 Conceptualization and Design of Mass Communication Research Credits: 2 - 3
Assists students in turning research questions into substantive research designs with understanding of the concepts involved. For most students, the final product will be a well-developed thesis or dissertation proposal. Prereq: Graduate or professional standing
Typically Offered: Occasionally

LSC 823 Science and Environment Communication Credits: 3
Course uses available scholarship and commentary to track the evolution of mass media coverage of science and the environment. Emphasis on how journalists utilize evidence, the influence of scientific and journalistic norms on stories, and the effects of mass media on science and environment messages to the public. Prereq: Graduate or professional standing
Typically Offered: Occasionally

LSC 831 Psychology of Entertainment Media Credits: 3
This course is designed to provide an in-depth look into entertainment media, including its effects on individuals, social groups, and society. The focus on entertainment content is across platforms - from "mass" to social media. Emphasis will be paid to psychological, individual-level effects. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

LSC 833 Technology and Society Credits: 3
This seminar considers the effects of new communication technologies on everyday life and political mobilization. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

LSC 840 Strategic Mass Communication Credits: 3
Intensive readings focusing on theories, strategies, and methods involved in the strategic uses of mass communication. The course may focus on macro or micro issues. Prereq: Grad st
Typically Offered: Occasionally

LSC 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally
LSC 880 Topics in Mass Communication Credits: 3
In-depth investigation of a specific topic in mass communication. Prereq: Grad st
Typically Offered: Occasionally

LSC 901 Colloquium in Mass Communication Credits: 1
May be repeated to a maximum of 3 credits. Colloquium series for communication graduate students. Course will offer research presentations by mass communication scholars, and is designed to acquaint graduate students with theoretical and methodological approaches to the study of communication. Prereq: Grad st
Typically Offered: Occasionally

LSC 902 Public Opinion of Life Science Issues Credits: 3
Advanced seminar on public opinion surrounding the science issues and science policy. Examines the intersection of public opinion, science, and politics; issues related to public opinion measurement; and the importance of public opinion for different aspects of life science communication. Prereq: Grad st or cons inst
Typically Offered: Occasionally

LSC 990 Research Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

LSC 999 Independent Research Credits: 1 - 3
Independent research. Prereq: Cons inst
Typically Offered: Occasionally

MICROBIOLOGY

MICROBIO 1 Cooperative Education/Co-op in Microbiology Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Microbio 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

MICROBIO 100 The Microbial World Credits: 3
Roles of microorganisms and viruses in nature, health, agriculture, pollution control and ecology. Principles of disease production, epidemiology and body defense mechanisms. Biotechnology and the genetic engineering revolution. Primarily for non-science majors; not accepted for degree credit in Bacteriology. Prereq: Open to Fr. No degree credit for both Bact 100 & 101 or 303.
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MICROBIO 101 General Microbiology Credits: 3
Survey of microorganisms and their activities; emphasis on structure, function, ecology, nutrition, physiology, genetics. Survey of applied microbiology--medical, agricultural, food and industrial microbiology. Intended to satisfy any curriculum which requires introductory level microbiology. See 102 if laboratory is desired. Prereq: Chem 103 or 108 or 109 or 115. Stdts may not rec cr for both Bact 101 & 303. Stdts with 1 sem organic chem who will continue in biol or phys sci take 303. Open to Fr.
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 102 General Microbiology Laboratory Credits: 2
Covers techniques and procedures used in general microbiology, including cultivation, enumeration, aseptic techniques, physiology and selected applications. Prereq: Bact 101 or concurrent registration (preferred). Stdts may not receive credit for both Bact 102 & 304. Open to Freshmen
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

MICROBIO 299 Independent Study Credits: 1 - 3
Prereq: Open to Fr, So or Jr st & written cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MICROBIO 303 Biology of Microorganisms Credits: 3
Basic biology of microorganisms, including structure, function, physiology, genetics, ecology, diversity, and evolution. Prereq: Prev crse in botany, zooll, Biocore or gen biol; 1 sem org chem or con reg. No degree cr for both Bact 101 & 303. Required of Bact majors, recommended for biol sci majors.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 304 Biology of Microorganisms Laboratory Credits: 2
Introduction to modern laboratory techniques used to study the distribution and properties of microorganisms. This is the companion lab to Microbiology 303. Degree credits cannot be earned in both Microbiology 102 and 304. Prereq: Bact 303 or con reg. No degree cr for both Bact 102 & 304. Required of Bact majors & recommended for bio-sci majors.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 305 Critical Analyses in Microbiology Credits: 1
Train students to become scientific problem-solvers, to critically analyze data, and to comprehend the principles of microbiological research via active discussion of a combination of scholarly papers and contemporary, hot topics in our field. Prereq: Microbio 303 or con reg.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MICROBIO 324 Food Microbiology Laboratory Credits: 2
Lab exercises dealing with food preservation, spoilage, and food poisoning. Isolation, identification and quantification of specific microbes occurring in foods, and food fermentations by bacteria and yeast. Prereq: Bact 102 or 304; Bact/Food Sci 325 or con reg.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MICROBIO 325 Food Microbiology Credits: 3
Principles of food preservation, epidemiology of foodborne illness, agents of foodborne illness, food fermentations and biotechnology. Prereq: Bact 101 or 303 or M&I 301 or cons inst.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MICROBIO 330 Host-Parasite Interactions Credits: 3
Interrelationships between bacterial and viral parasites and their host cells or tissues. Stresses microbial strategies and mechanisms of colonization, invasion, pathogenesis and resistance to host defenses. Prereq: Bact 101 & 102; or Bact 303 & 304; or equiv.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MICROBIO 375 Special Topics Credits: 1 - 4
Subjects of current interest to undergrads. Prereq: Variable prerequisites depending on topic.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MICROBIO 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So or Jr or Sr st & cons suprvsg inst, advisor, & intrshp prog coordinator.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 400 Study Abroad in Microbiology Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program.
Typically Offered: Fall, Spring, Summer

MICROBIO 425 Environmental Microbiology Credits: 3
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MICROBIO 450 Diversity, Ecology and Evolution of Microorganisms Credits: 2
Fundamental concepts relating to the phylogenetic diversity, ecology and evolution of microbes. Active learning methods applying these concepts will promote a deeper understanding of microbiology. Prereq: Bact 303, 1 sem of genetics, & either Biochem 501 or equiv or 507 or equiv.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
MICROBIO 470 Microbial Genetics & Molecular Machines Credits: 3
An undergraduate-level course in modern microbial genetics and molecular processes. Emphasis on the use of eubacterial and eukaryotic microbes to elucidate cellular function. Discussion of experimental approaches to study microbes and their use in biotechnology, bioremediation, and medicine. Prereq: Microbio 303
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MICROBIO 523 Soil Microbiology and Biochemistry Credits: 3
Transformations of nutrients and contaminants in soils and groundwater by microorganisms: emphasis on enzymatic mechanisms and metabolic pathways. Approaches for analyzing microbial populations and activities including molecular techniques. Applications of microbial activities for bioremediation of contaminated soils and groundwater. Prereq: Chem 104; Bact 303 or Bot 375 or Biochem 501, or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MICROBIO 526 Physiology of Microorganisms Credits: 3
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MICROBIO 527 Advanced Laboratory Techniques in Microbiology Credits: 2
This course will provide students with a strong foundation in modern methods of research in the biomedical sciences as they address hypothesis-driven scientific questions. Students will also be coached in and practice critical data analysis and scientific writing. Prereq: Declared in Microbiology and MICROBIO 304
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MICROBIO 528 Immunology Credits: 3
Development and functions of immune response in animals; a comprehensive study of experimental humoral and cellular immunity. Prereq: Two sem chem and one sem zoology or gen biology
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MICROBIO 545 Topics in Biotechnology Credits: 1
Seminars on current topics in agricultural, medical, and industrial biotechnology such as: microbial production of food, drink, biopharmaceuticals; production methods, genetic engineering (vectors, recombination cloning), continuous fermentation; bioconversion processes and production of chemicals from biomass; plant biotechnology; transgenic animals. Prereq: Biochem 501 and Genetics 466 or equiv
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MICROBIO 551 Physiological Diversity of Procaryotes Laboratory Credits: 2
Prereq: Bact 304, 526, 527 & con reg in Bact 550. Priority to bacteriology seniors. Required of bact majors
General Education: COM B L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MICROBIO 607 Advanced Microbial Genetics Credits: 3
Molecular genetic methods and related aspects of prokaryotic and lower eukaryotic biology, as well as critical analysis of the scientific literature. Approximately two-thirds of the course will focus on prokaryotes and one-third on lower eukaryotic microbes. Prereq: Genetics 466 or equiv, Biochem 501 or equiv, & Grad st or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MICROBIO 612 Prokaryotic Molecular Biology Credits: 3
Molecular basis of bacterial physiology and genetics with emphasis on molecular mechanisms; topics include nucleic acid-protein interactions, transcription, translation, replication, recombination, regulation of gene expression. Prereq: Bact 370 or equiv & Biochem 501 or equiv, or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MICROBIO 622 Plant-Bacterial Interactions Credits: 2 - 3
Physiology, genetics, taxonomy, and ecology of bacterial pathogens, epiphytes, and symbionts of plants. Prereq: A course in advanced bacteriology; Genetics 466 or equiv; Biochem 501 or equiv; or cons inst
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MICROBIO 625 Advanced Microbial Physiology Credits: 3
Course topics will focus on microbial physiology with an emphasis on metabolic processes. Prereq: Bact 550 or equiv, and Biochem 501 or 601 or con reg & cons inst
Typically Offered: Occasionally
MICROBIO 632 Industrial Microbiology/Biotechnology Credits: 2
Application of modern techniques of genetics and physiology to the large-scale production of microbial products; industrial strain improvement; scale-up of microbial processes; survey of industrial processes using microorganisms. Prereq: Bact 526 & Biochem 501 or equiv
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MICROBIO 640 General Virology-Multiplication of Viruses Credits: 3
Bacterial and animal viruses, their structure, multiplication, and genetics. Prereq: Intro crses in bact, biochem & genetics
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MICROBIO 650 Advanced Microbiology of Foodborne Pathogens Credits: 3
Infectious and toxigenic agents of foodborne disease: detection, identification, and control methods; ecology and survival strategies of pathogens in foods; virulence mechanisms of foodborne pathogens. Prereq: Bact/Food Sci 325 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MICROBIO 655 Biology and Genetics of Filamentous Fungi Credits: 3 - 4
Fungal genetics, genomics, and physiology using plant pathogenic fungi and the genetic models Aspergillus nidulans and Neurospora crassa as model systems to explore the current knowledge of fungal genetics and plant/fungal interactions. Prereq: Cons inst; PI Path 300 & 332 recommended; Genetics 466 or equiv; general microbiol crse
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

MICROBIO 668 Microbiology at Atomic Resolution Credits: 3
Three-dimensional protein structures form the basis for discussions of high resolution microbiology; how particular problems are solved with given protein architectures and chemistries and how themes of protein structure are modified and recycled. Prereq: Biochem (e.g. Biochem 501), molecular biol (e.g. Bact 526 or 612) required, one semester of physical chem preferred
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MICROBIO 681 Senior Honors Thesis Credits: 2 - 3
Individual lab research for majors for an honors degree in bacteriology (L&S students must take 3 cr per sem). Prereq: Hon prog candidacy
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Bact 681
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 691 Senior Thesis Credits: 2
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 692 Senior Thesis Credits: 2
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 699 Special Problems Credits: 1 - 4
Prereq: Sr or Grad st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MICROBIO 710 Microbial Symbiosis Credits: 3
Covers the themes and diversity of plant and animal associations with microbes with an emphasis on beneficial relationships. Examples will be drawn from recent literature. Prereq: Grad st
Typically Offered: Occasionally

MICROBIO 726 Regulation of Gene Expression in Prokaryotes Credits: 3
An intensive examination of a limited number of systems to illustrate the range of molecular mechanism utilized to control gene expression in bacteria. Prereq: Bact/Genetics/Biochem 612 or cons inst
Typically Offered: Occasionally
MICROBIO 731 Seminar Credits: 1
Reviews of microbiological subjects, and reports on research work. Prereq: Grad st
Typically Offered: Occasionally

MICROBIO 740 Mechanisms of Microbial Pathogenesis Credits: 3
Lecture-discussion. Host-pathogen relationships in microbial diseases. Entry level course for infectious diseases sequence (see Med Micro 760, 790). Prereq: Cons inst, MM&I 301 or equiv & a course in immunology
Typically Offered: Fall

MICROBIO 790 Immunology of Infectious Disease Credits: 3
Immunobiology and immunogenetics of resistance to infectious disease agents of man and animals; immunoregulatory mechanisms associated with evasion of host immunity. Prereq: MM&I 720 or equiv, MM&I 740 or equiv, & cons inst
Typically Offered: Occasionally

MICROBIO 811 Advanced Problems in Microbiology Credits: 1
Required course for first-year Ph.D. graduate students in the Microbiology Doctoral Training Program (MDTP); combines faculty lectures, review of primary literature, student presentations, and small group discussions to explore the diversity of scientific topics comprising the field of contemporary microbiology. Prereq: 1st yr st in Microbiol Doctoral Training Progm
Typically Offered: Occasionally

MICROBIO 875 Special Topics Credits: 1 - 4
Of current interest to graduates. Prereq: Variable prerequisites depending on topic
Typically Offered: Occasionally

MICROBIO 901 Advanced Seminar Credits: 1
Recent advances in specialized areas of microbiology. Prereq: Bact 729 & Grad st & cons inst
Typically Offered: Occasionally

MICROBIO 914 Seminar-Molecular Biosciences (Advanced) Credits: 1
During the fall semester, molecular biosciences trainees who have not achieved dissertator status will present seminars based primarily on literature related to their projects. During the spring semester, molecular biosciences trainees with dissertator status will present seminars based upon their own research. Prereq: None
Typically Offered: Fall, Spring, Summer

MICROBIO 917 Regulation of Gene Expression (Advanced Seminar) Credits: 1
Participants will discuss recent literature in topics related to prokaryotic and eukaryotic gene regulation. These topics include but are not limited to regulation of transcription, translation, and genome organization. Each week, one student participant will lead a critical discussion on a recent publication in the field of gene regulation. The discussion leader will explain the background materials, methodology, experimental results, and broader implications of the publication. All participants will be expected to take an active role in the discussion. Prereq: None
Typically Offered: Fall, Spring

MICROBIO 932 Biotechnology Training Program Seminar Credits: 1
Biotechnology Training Program trainees will present their research for critical review by audience. Prereq: Grad st. Required of Biotechnology Training Program trainees
Typically Offered: Occasionally

MICROBIO 990 Research Credits: 1 - 9
Full lab and literature review of a problem in microbiology. Leads to preparation of thesis and publication. Prereq: Grad st & cons inst
Typically Offered: Occasionally

MICROBIO 999 Special Problems Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Occasionally

MOLECULAR & ENVIRONMENTAL TOX
M&ENVTOX 368 Environmental Law, Toxic Substances, and Conservation Credits: 2
Development of and need for “environmental law”; an introduction to the legal system; public and private rights in the environment; regulation of pesticides and toxic substances; environmental legislation and rulemaking; environmental impact statements; professionals as expert witnesses. No prior knowledge of law assumed. For scientists and others dealing with environmental issues in academia, industry and government. Prereq: Soc st L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

M&ENVTOX 606 Colloquium in Environmental Toxicology Credits: 1
Current topics in molecular and environmental toxicology and problems related to biologically active substances in the environment. Topics vary each semester. Lectures are by resident and visiting professors and other researchers. Prereq: Biology/Zoology 101, Biology/Botany 130, or equivalent L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

M&ENVTOX 623 Advanced Nutrition: Minerals Credits: 1
Topics discussed in regard to minerals are: metabolic roles; absorption, excretion, transport and cellular metabolism; nutritional and toxicological standards for humans and animal models; bioavailability; genetic interactions; and research methodologies. Prereq: Grad st; Nutr Sci 510 & Physiol 335 or equiv or cons inst Typically Offered: Fall

M&ENVTOX 625 Toxicology I Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body. Prereq: Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M&ENVTOX 626 Toxicology II Credits: 3
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented. Prereq: Env Tox 625 or consent of instructor L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M&ENVTOX 631 Toxicants in the Environment: Sources, Distribution, Fate, & Effects Credits: 3
Nature, sources, distribution, and fate of contaminants in air, water, soil, and food and potential for harmful exposure Prereq: Chem 343 & 345 or equiv; Chem 561 or equiv; Physics 103 & 104 or equiv; Math 211; or cons inst L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M&ENVTOX 632 Ecotoxicology: The Chemical Players Credits: 1
Introduction to natural and man-made toxins/toxicants, their distribution, transport, and fate in the environment. Includes lectures, current research presentations, and discussions. Prereq: 2 sem intro biol & 1 sem organic chem, or cons inst Typically Offered: Occasionally

M&ENVTOX 633 Ecotoxicology: Impacts on Individuals Credits: 1
Addresses absorption, biotransformation, elimination of toxins in a wide variety of taxa (plants, invertebrates, vertebrates), and includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 632, or 2 sem intro biol & M&Envtox 631, or cons inst Typically Offered: Occasionally

M&ENVTOX 634 Ecotoxicology: Impacts on Populations, Communities and Ecosystems Credits: 1
Focuses on the impact of toxicants on populations, communities, ecosystems, and includes risk evaluation. Includes lectures, current research presentations, and discussions. Prereq: M&EnvTox 633, or M&EnvTox 625, 626 & 631, or cons inst Typically Offered: Occasionally

M&ENVTOX 699 Special Problems Credits: 1 - 3
Prereq: Cons inst L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer
M&ENVTOX 789 Principles of Environmental Health: A Systems Thinking Approach  Credits: 3
This course provides an overview of the field of environmental health, using a systems thinking approach. Systems thinking recognizes that environmental health problem solving is complex and that solutions in one area may have positive or negative impacts on other areas. As an overview it provides an introduction to the history of environmental health within the field of public health from the local to the federal and global level. It will introduce multiple disciplines, methods and approaches to numerous environmental health topics. It includes introduction to methods and tools necessary for assessing human health risks from a variety of environmental hazards and exposures found in air, lan
Typically Offered: Spring

M&ENVTOX 800 Seminar  Credits: 1
Current research in environmental toxicology and pathology and other topics of interest and importance to environmental toxicologists.  Prereq: Grad st & cons inst
Typically Offered: Occasionally

M&ENVTOX 990 Research  Credits: 1 - 9
Prereq: Grad st & cons inst
Typically Offered: Occasionally

NUTRITIONAL SCIENCES

NUTR SCI 1 Cooperative Education/Co-op in Nutritional Science  Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Nutr Sci 399.  Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: Fall, Spring, Summer

NUTR SCI 132 Nutrition Today  Credits: 3
Nutrition and its relationship to humans and their biological, social, and physical environment; current issues and concerns that affect the nutritional status of various population groups.  Prereq: Not open to stdts eligible for Nutr Sci 332. Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

NUTR SCI 200 The Professions of Dietetics and Nutrition  Credits: 1
An overview of the nutrition and dietetics professions: career options; professional and portfolio development; professional references and resources; credentialing; and professional issues.  Prereq: Pre-dietetics (PDI) or dietetics (ADI) major classification
Typically Offered: Fall, Spring

NUTR SCI 203 Introduction to Global Health  Credits: 3
Introduces students to global health concepts through multidisciplinary speakers dedicated to improving health through their unique training. It targets students with an interest in public health and those who wish to learn how their field impacts their global issues.  Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NUTR SCI 289 Honors Independent Study  Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Spring, Summer

NUTR SCI 299 Independent Study  Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

NUTR SCI 311 Comparative Animal Nutrition  Credits: 3
Nutrients and their source, assimilation, function and requirement.  Prereq: BmolChem 314 or Chem 341 or Chem 343 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
NUTR SCI 332 Human Nutritional Needs Credits: 3
Lectures, discussion. Biological basis of the nutritional requirements of humans and the influence of psychological and societal factors on the manner of their fulfillment. Prereq: Chem 103; Chem 104 or Biochem 201 or BmolChem 314
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

NUTR SCI 350 World Hunger and Malnutrition Credits: 3
Hunger and poverty in developing countries and the United States. Topics include: nutrition and health, population, food production and availability, and income distribution and employment.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NUTR SCI 375 Special Topics Credits: 1 - 4
Subjects of current interest to undergraduates. Prereq: Cons inst
Typically Offered: Fall, Spring

NUTR SCI 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So or Jr or Sr st & cons supervising inst, advisor & internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

NUTR SCI 400 Study Abroad in Nutritional Sciences Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

NUTR SCI 421 Global Health Field Experience Credits: 1 - 4
Undergraduate global health field experiences address a broad range of health topics including nutrition, primary health care, water and sanitation, climate change, sustainable agriculture, and economic development. These field experiences take place in sites around the world including locations in Africa, Asia, Latin America, Europe, and the United States. Engaged learning will include participation in applied public health activities and service learning projects with communities and partner organizations. Students will gain knowledge about health and disease and explore interdisciplinary approaches to health. Field experiences are designed to meet the requirement for the Undergraduate Cert
Typically Offered: Spring, Summer

NUTR SCI 431 Nutrition in the Life Span Credits: 3
Influence of nutrition on growth and development; physiological basis of nutritional requirements throughout the life span, including the relationship of food habits and nutrition to selected chronic diseases; principles of nutritional intervention in community programs. Prereq: Jr st; grade of C or better in Physiol 335 & Nutr Sci 332 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NUTR SCI 499 Capstone in Nutrition Credits: 2
Capstone in the nutritional sciences, emphasis is on the integration of nutritional knowledge and the interpretation and application of nutrition-oriented research. Prereq: Sr st & Nutr Sci 431; Nutr Sci 510 or con reg
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NUTR SCI 500 Undergraduate Capstone Seminar Laboratory Credits: 1
Current topics in Nutritional Sciences and undergraduate research presentations. Enrollment limited to Nutritional Sciences majors. Prereq: Nutr Sci 431 and Nutr Sci 510 (or con reg) and Sr st or second sem Jr st in Nutritional Sciences major or cons inst
Typically Offered: Fall, Spring

NUTR SCI 510 Biochemical Principles of Human and Animal Nutrition Credits: 3
Lectures in nutrition for students with a substantial background in biochemistry. Emphasis on biochemical and physiological fundamentals of nutrition. Discussion of protein, fat, carbohydrate, energy, minerals and vitamins and their roles and interrelationships in nutrition and metabolism. Prereq: (BMOLCHEM 314 or 503) or (BIOCHEM 501 or 507)
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
NUTR SCI 520 Applications in Clinical Nutrition Credits: 3
Capstone course includes clinical problem solving, assessing medical record data, evaluating food intake, planning modified diets, and reviewing medical and research literature. Develops critical thinking, teamwork and communication skills needed by the dietetic intern and dietitian. Prereq: Nutr Sci 631 & Nutr Sci 500 (or con reg) & Sr in Dietetics major-Didactic Prgm or Sr in Nutr Sci Major, Nat Sci opt & cons inst
Typically Offered: Spring

NUTR SCI 525 Nutrition in Physical Activity and Health Credits: 3
The purpose of this course is to provide undergraduate and graduate students with both scientific knowledge and application of nutrition related to exercise, health, and sports. Prereq: Admission to Kinesiology(Athletic Training, Exercise and Movement Science, or Physical Education Teacher Education) or Nutritional Science major and Physiology 335
Typically Offered: Fall, Spring, Summer

NUTR SCI 540 Community Nutrition Programs and Policy Issues Credits: 1
Students will increase their understanding of community-based nutrition needs, intervention programs and policy issues in the U.S. Written assignments will demonstrate students' positions on related issues. Prereq: Nutr Sci 431 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NUTR SCI 600 Introductory Seminar in Nutrition Credits: 1
Presentation of reports from current journals of nutritional sciences. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NUTR SCI 619 Advanced Nutrition: Intermediary Metabolism of Macronutrients Credits: 3
Discuss metabolic control; gastrointestinal physiology, nutrient absorption; molecular, cellular, organismal aspects of glucose transport, metabolism, regulation; fuel sensing; molecular regulation of fatty acid, lipid metabolism; cellular, organismal aspects of protein metabolism; hormonal control of metabolism; experimental approaches for studying metabolism. Prereq: Grad st; Nutr Sci 510 or Biochem 507 & 508 or Bmolchem 503 (or con reg) or cons inst
Typically Offered: Spring

NUTR SCI 621 Introduction to Nutritional Epidemiology Credits: 1
Techniques used to evaluate relationships of diet to health and disease in human populations; integration of knowledge gained with results of animal and clinical studies toward understanding dietary risk or protective factors for disease. Includes advanced diet assessment and basic epidemiologic approaches. Prereq: Stat 301 or equivalent & Nutr Sci 332 or consent of instructor
Typically Offered: Fall

NUTR SCI 623 Advanced Nutrition: Minerals Credits: 1
Topics discussed in regard to minerals are: metabolic roles; absorption, excretion, transport and cellular metabolism; nutritional and toxicological standards for humans and animal models; bioavailability; genetic interactions; and research methodologies. Prereq: Grad st; Nutr Sci 510 & Physiol 335 or equiv or cons inst
Typically Offered: Fall

NUTR SCI 625 Advanced Nutrition: Obesity and Diabetes Credits: 1
Physiology, biochemistry and genetics of human obesity and diabetes. Critical review of current research on their etiology and treatment. Prereq: Grad st; Nutr Sci 619 or con reg & Physiol 335 or equiv or cons inst
Typically Offered: Spring

NUTR SCI 626 Experimental Diet Design Credits: 1
Discuss nutrient requirements, composition of ingredients used to meet requirements and the mathematical steps involved in diet formulation with emphasis on research animals and human subjects. Prereq: Grad st; Stat 301 or equiv & Nutr Sci 510 or con reg or cons inst
Typically Offered: Fall

NUTR SCI 627 Advanced Nutrition: Vitamins Credits: 1
Scientific knowledge of the metabolic functions, metabolism and nutritional requirements for some of the water soluble vitamins and all of the fat soluble vitamins. Prereq: Grad st; Nutr Sci 510 & Physiol 335 or equiv or con reg or cons inst
Typically Offered: Spring
NUTR SCI 631 Clinical Nutrition Credits: 4
Body systems in relation to the alterations in nutrition and metabolism that accompany disease states. Research related to therapeutic nutrition. Prereq: Nutr Sci 332, 431; Biochem 501 or BmolChem 314; ADI classification or consent of instructor
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

NUTR SCI 635 Advanced Clinical Nutrition Credits: 1
Clinical nutrition and rationale for medical nutrition therapy in relation to the pathophysiology of specific disease states. Lectures, case studies and discussion of current research. Prereq: Current enrollment or completion of Nutr Sci 631, Nutr Sci 431, and Biochem 501 or Bmolchem 314 or 503
Typically Offered: Fall

NUTR SCI 650 Advanced Clinical Nutrition: Critical Care and Nutrition Support Credits: 3
This course provides advanced study of the metabolic demands of critical illness and how these alterations influence the nutritional needs of critical care patients in various disease states. Using an evidence-based medical approach, students will assess nutrient requirements and determine best methods of nutrient delivery in various disease states. Anthropometric measures and hematological indices will be incorporated to assess nutritional status and monitor response to nutritional therapies. Prereq: Admission to the Capstone Certificate in Clinical Nutrition, or the Capstone Certificate in Clinical Nutrition - Dietetic Internship
Typically Offered: Summer

NUTR SCI 651 Advanced Clinical Nutrition - Pediatrics Credits: 3
Pediatric nutritional requirements with emphasis on issues related to evidence-based medical nutrition therapy. Prereq: Admission to the Capstone Certificate in Clinical Nutrition or the Capstone Certificate in Clinical Nutrition - Dietetic Internship.
Typically Offered: Summer

NUTR SCI 652 Advanced Nutrition Counseling and Education Credits: 3
Application of current theories and techniques of counseling and education to the field of nutrition and dietetics. Practical application of communication techniques, client-centered counseling methods, motivational interviewing, learning theories and behavior change techniques, and factors affecting eating patterns. Nutrition psychology and the psychoanalytic approach to nutrition counseling will be emphasized in the class. Principles of group counseling/facilitation and instructional material/media design. Prereq: Admission to the Capstone Certificate in Clinical Nutrition, or the Capstone Certificate in Clinical Nutrition - Dietetic Internship
Typically Offered: Fall

NUTR SCI 653 Clinical Nutrition Research Credits: 3
Research use and development as it applies to clinical nutrition practice: effective use of the literature in evidence based practice and research development, problem development, methodology, analysis and reporting of results and conclusions. Prereq: Admission to the Capstone Certificate in Clinical Nutrition of the Capstone Certificate in Clinical Nutrition - Dietetic Internship
Typically Offered: Spring

NUTR SCI 670 Nutrition and Dietetics Practicum I Credits: 3
The first of two supervised practice experiences in nutrition and dietetics at University of Wisconsin Hospital and Clinics and affiliated sites. Dietetic interns apply their academic training, furthering their competency in: clinical nutrition, food systems management, research, and community experiences. Prereq: Admission to the Capstone Certificate in Clinical Nutrition - Dietetic Internship
Typically Offered: Fall

NUTR SCI 671 Nutrition and Dietetics Practicum II Credits: 3
The second of two supervised practice experiences in nutrition and dietetics at University of Wisconsin Hospital and Clinics and affiliated sites. Dietetic interns apply their academic training, furthering their competency in: clinical nutrition, food systems management, research, and community experiences. Prereq: Admission to the Capstone Certificate in Clinical Nutrition - Dietetic Internship
Typically Offered: Spring

NUTR SCI 672 Herbals, Homeopathy, and Dietary Supplements Credits: 2 - 3
Covers regulations and clinical science regarding the use of herbals, homeopathic remedies, and dietary supplements, focusing on peer-reviewed studies and integration with allopathic drugs; includes discussion of marketing issues. Prereq: Phm Sci 432 or Biochem 501 or BmolChem 314; Physiol 335; or cons inst
Typically Offered: Spring
**NUTR SCI 681 Senior Honors Thesis** Credits: 2 - 4
Prereq: Honors candidacy
Typically Offered: *Fall, Spring, Summer*

**NUTR SCI 682 Senior Honors Thesis** Credits: 2 - 4
Continuation of 681. Prereq: Nutr Sci 681 and honors candidacy
Typically Offered: *Fall, Spring, Summer*

**NUTR SCI 691 Senior Thesis-Nutrition** Credits: 1 - 4
Prereq: Senior standing & consent of instructor
Typically Offered: *Fall, Spring, Summer*

**NUTR SCI 692 Senior Thesis** Credits: 1 - 4
Prereq: Nutr Sci 691; Sr st & cons inst
Typically Offered: *Fall, Spring, Summer*

**NUTR SCI 699 Special Problems** Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: *Fall, Spring, Summer*

**NUTR SCI 799 Practicum in Nutritional Sciences Teaching** Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst
Typically Offered: *Occasionally*

**NUTR SCI 875 Special Topics** Credits: 1 - 4
Subjects of current interest to Grads. Prereq: Grad st and cons inst
Typically Offered: *Occasionally*

**NUTR SCI 881 Seminar-Topics in Human and Clinical Nutrition** Credits: 1
Varied topics in clinical and human nutrition. Prereq: Nutr Sci 600
Typically Offered: *Occasionally*

**NUTR SCI 901 Seminar-Nutrition and Metabolism (Advanced)** Credits: 1
Presentation of original research results; discussion of recent articles in animal metabolism and nutrition. Prereq: Cons inst
Typically Offered: *Occasionally*

**NUTR SCI 931 Seminar-Nutrition** Credits: 1
Seminar features expert presentations of current research and issue-based applications that represent the breadth of nutritional sciences; topics investigate problems "from molecules to communities". Prereq: Cons inst
Typically Offered: *Occasionally*

**NUTR SCI 991 Research Nutrition** Credits: 1 - 12
Prereq: Cons inst
Typically Offered: *Occasionally*

**NUTR SCI 993 Independent Study in Nutrition** Credits: 1 - 12
Prereq: Cons inst
Typically Offered: *Occasionally*

**PLANT PATHOLOGY**

**PL PATH 1 Cooperative Education/Co-op in Plant Pathology** Credits: 1
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Pl Path 399. Prereq: So st, and consent of supervising instructor and academic advisor.
Typically Offered: *Fall, Spring, Summer*
PL PATH 123 Plants, Parasites, and People Credits: 3
The course will explore the interaction between society and plant-associated microbes. Topics include: the Irish potato famine, pesticides in current agriculture, role of economics and consumer preference in crop disease management and the release of genetically engineered organisms. Prereq: Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PL PATH 261 Sustainable Turfgrass Use and Management Credits: 2
Sustainable use and management of turfgrass landscapes in urban and suburban environments, including home lawns, golf courses, and sports fields. Focus is on creating sustainable and attractive turfgrass landscapes through proper species selection, use of slow-release or organic fertilizer practices, and minimizing the use of pesticides and supplemental irrigation. Prereq: None
Typically Offered: Fall

PL PATH 262 Turfgrass Management Laboratory Credits: 1
Hands-on turf establishment, cool- and warm-season grass, seed and weed identification, chemical application, and turf cultivation techniques and equipment use, plus field trips to major league sport facilities and golf courses. Prereq: HORT 261 or concurrent enrollment
Typically Offered: Fall

PL PATH 289 Honors Independent Study Credits: 1 - 2
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288
Typically Offered: Fall, Spring, Summer

PL PATH 299 Independent Study Credits: 1 - 3
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring, Summer

PL PATH 300 Introduction to Plant Pathology Credits: 4
Economic importance, symptoms, causes, and methods of control of representative plant diseases. Prereq: Intro course in bot
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PL PATH 309 Diseases of Trees and Shrubs Credits: 3
Fundamental disease concepts, pathogens and causal agents, diagnosis, and biologically rational principles and practices for management of diseases of trees and shrubs. For degree students and professionals. One extended lecture with discussion and one lab or field trip per week. Prereq: One semester of plant sci or consent of instructor
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PL PATH 311 Global Food Security Credits: 3
Isn't having enough food a basic human right? Exploration of the drivers of food insecurity: barriers to food production (pests, land availability, climate), barriers to food availability (politics, price, biofuels), and a greater need due to population growth. Examination of solutions to food insecurity. Prereq: Sophomore standing
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PL PATH 323 Soil Biology Credits: 3
Nature, activities and role of organisms inhabiting soil. Effects of soil biota on ecosystem function, response to cultural practices, and impacts on environmental quality, including bioremediation of contaminated soils. Prereq: Chem 104 and Botany 130 or equiv
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PL PATH 332 Fungi Credits: 4
Growth, development, variability and dispersal of saprophytic, parasitic, and symbiotic fungi, with a consideration of their ecological and economic significance. Prereq: A 5 cr intro crse in botany
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PL PATH 354 Diagnosing and Monitoring Pest and Nutrient Status of Field Crops Credits: 1
This course is designed to provide students with information necessary to diagnosis and monitor corn, soybean, alfalfa and wheat for pests (insects, weeds, diseases) and nutrient deficiency symptoms including perspectives from Agronomy, Entomology, Horticulture, Plant Pathology and Soil Science. Proper soil and pest sampling information will be provided as will proper crop staging techniques which are essential for pest and nutrient management. Prereq: None
Typically Offered: Spring
PL PATH 368 Environmental Law, Toxic Substances, and Conservation Credits: 2
Development of and need for "environmental law"; an introduction to the legal system; public and private rights in
the environment; regulation of pesticides and toxic substances; environmental legislation and rulemaking;
environmental impact statements; professionals as expert witnesses. No prior knowledge of law assumed. For
scientists and others dealing with environmental issues in academia, industry and government. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

PL PATH 375 Special Topics Credits: 1 - 4
Subjects of current interest to undergrads. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PL PATH 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st and cons supervising inst, advisor, and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PL PATH 400 Study Abroad in Plant Pathology Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

PL PATH 505 Plant-Microbe Interactions: Molecular and Ecological Aspects Credits: 3
Molecular and ecological aspects of the interactions between plants and microorganisms. This course explores
many of the themes, from genetic to integrative, of modern biology, and illustrates how study of plant-microbe
interactions contributes to understanding of fundamental plant science. Prereq: An upper level crse in microbiol
e.g. Bact 303); biochem (e.g. Biochem 501); & genetics (e.g. Genetics 466) or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PL PATH 517 Plant Disease Resistance Credits: 2 - 3
Host resistance in plant disease control. Conceptual and applied aspects of resistance: how it works, why it
sometimes fails, and the traditional and modern techniques used for evaluating host resistance and incorporating
resistance factors into new plant varieties. Prereq: Previous coursework in plant pathology, genetics and/or plant
breeding, or consent of instructor
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PL PATH 558 Biology of Plant Pathogens Credits: 3
Explores biology of plant pathogenic fungi, oomycetes, nematodes, bacteria, and viruses, with emphasis on
identifying: 1) key traits of each pathogen class, and 2) common strategies used by these microbes. Inquiry-driven
laboratory will investigate diverse interactions between plants and their pathogens. Prereq: Pl Path 300 or equiv
or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PL PATH 559 Diseases of Economic Plants Credits: 3
Symptoms, epidemiology and control of diseases of crop plants; emphasis on disease diagnosis. Plant disease
clinic, field trips, lectures and lab. Prereq: Plant Path 300 & 332
Typically Offered: Occasionally

PL PATH 590 Capstone in Plant Pathology Credits: 1 - 4
Synthesizing research-based capstone experience for students majoring in Plant Pathology. Students will develop
problem-solving skills, be exposed to multidisciplinary approaches, develop teamwork and interpersonal skills,
develop information resources, consider societal, economic, ethical, scientific and professional aspects of the
field, and prepare and present written and/or oral reports. Prereq: Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PL PATH 602 Ecology, Epidemiology and Control of Plant Diseases Credits: 3
Environmental factors in the development and spread of diseases, pathogen variability, genetics of disease
resistance, and principles of disease control. Prereq: Knowledge equiv to that obtained in Pl Path 300, Botany
332, Stat 571, Math 212, & Pl Path 616 or cons inst
Typically Offered: Occasionally
PL PATH 606 Colloquium in Environmental Toxicology Credits: 1
Current topics in molecular and environmental toxicology and problems related to biologically active substances in
the environment. Topics vary each semester. Lectures are by resident and visiting professors and other
researchers.. Prereq: Biology/Zoology 101, Biology/Botany 130, or equivalent
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PL PATH 622 Plant-Bacterial Interactions Credits: 2 - 3
Physiology, genetics, taxonomy, and ecology of bacterial pathogens, epiphytes, and symbionts of plants. Prereq:
A course in advanced bacteriology; Genetics 466 or equiv; Biochem 501 or equiv; or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PL PATH 640 General Virology-Multiplication of Viruses Credits: 3
Bacterial and animal viruses, their structure, multiplication, and genetics. Prereq: Intro csres in bact, biochem &
genetics
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PL PATH 655 Biology and Genetics of Filamentous Fungi Credits: 3 - 4
Fungal genetics, genomics, and physiology using plant pathogenic fungi and the genetic models Aspergillus
nidulans and Neurospora crassa as model systems to explore the current knowledge of fungal genetics and
plant/fungal interactions. Prereq: Cons inst; Pl Path 300 & 332 recommended; Genetics 466 or equiv; general
microbiol crse
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

PL PATH 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors candidacy
Typically Offered: Fall, Spring, Summer

PL PATH 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Pl Path 681
Typically Offered: Fall, Spring, Summer

PL PATH 699 Special Problems Credits: 1 - 5
Prereq: Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PL PATH 799 Practicum in Plant Pathology Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct
teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of
teaching performance. Prereq: Grad st & cons inst
Typically Offered: Fall, Spring

PL PATH 800 Inquiry-Based Biology Teaching Credits: 1 - 2
The goal is for students to develop competence and confidence as teachers. The course covers fundamentals of
learning theory and practical strategies for teaching biology. Students practice lecturing, manage classroom
dynamics, and teach laboratory sections (optional). Prereq: Graduate or professional standing
Typically Offered: Fall

PL PATH 801 Teaching Biology: Special Topics Credits: 1
Students will learn about mentoring and/or instructional materials. Students have two options: (a) practice
mentoring undergraduate researchers with feedback and evaluation and/or (b) develop and evaluate instructional
materials. This course builds on content from Plant Pathology 800. Prereq: Pl Path 800 or con reg
Typically Offered: Fall, Spring, Summer

PL PATH 875 Special Topics Credits: 1 - 4
Topics of current interest to Grad students. Prereq: Grad st and cons inst
Typically Offered: Fall, Spring

PL PATH 923 Seminar Credits: 1
Prereq: Grad st
Typically Offered: Fall, Spring
### SOIL SCIENCE

**SOIL SCI 1 Cooperative Education/Co-op in Soil Science** Credits: 1  
Full-time off-campus work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Students receive credit only for the term in which they are actively enrolled and working. The same work experience may not count towards credit in Soil Science 399.  
Prereq: So st, and consent of supervising instructor and academic advisor.  
Typically Offered: Spring, Summer

**SOIL SCI 101 Forum on the Environment** Credits: 1 - 2  
Lectures and discussions about environmental issues. Historical and contemporary environmental impacts of humans on the biosphere. Global futures: population, technology, societal values, resources and prospects for sustainable management.  
Prereq: Open to Fr  
L&S Breadth: Soc Sci or Nat Sci L&S Level: Elementary L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**SOIL SCI 132 Earth’s Water: Natural Science and Human Use** Credits: 3  
Water is central to the functioning of planet Earth. As humans increase their impact on Earth's systems and cohabitants, our understanding of the multiple roles of water becomes critical to finding sustainable strategies for human and exosystem health. This course explores the science of Earth's hydrosphere, with constant attention to human uses and impacts.  
Prereq: HS math & science. Open to Fr  
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**SOIL SCI 230 Soil: Ecosystem and Resource** Credits: 3  
Soils are fundamental to ecosystem science. A systems approach is used to investigate how soils look and function. Topics investigated include soil structure, biology, water, fertility, and taxonomy as well as the human impact on the soil environment.  
Prereq: Not open to students with credits in Soil Sci 301  
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**SOIL SCI 289 Honors Independent Study** Credits: 1 - 2  
Prereq: Enrolled in the CALS Honors Prgm & Sophomore or Junior standing. Inter-Ag 288  
Typically Offered: Spring, Summer

**SOIL SCI 299 Independent Study** Credits: 1 - 3  
Prereq: Open to Freshmen, Sophomore or Junior standing & written consent of instructor  
Typically Offered: Fall, Spring

**SOIL SCI 301 General Soil Science** Credits: 4  
Physical chemical and biological properties of soils as they affect soil-plant-water relations, soil classification and suitability for agricultural and other uses.  
Prereq: Math 112 & Chem 103 or equiv  
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit  
Typically Offered: Fall

**SOIL SCI 305 Field Study of Soil** Credits: 1  
Intensive in situ description and evaluation of soil morphology. Field trips required.  
Prereq: Soil Sci 230, 301 or equiv  
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

**SOIL SCI 321 Soils and Environmental Chemistry** Credits: 3  
Sources, reactions, transport, effects, and fates of chemical species in soils and associated water and air environments. Emphasis on the chemical behavior of elements and compounds and the phenomena affecting natural and anthropogenic materials in soils.  
Prereq: Chem 103-104 or 109-110 or equivalent  
Typically Offered: Fall
SOIL SCI 322 Physical Principles of Soil and Water Management Credits: 3
Soil physical properties and interactions as related to soil and water resource management and conservation. Water runoff (leading to soil erosion and surface water contamination); tillage and nutrient management; soil thermal and moisture regimes; solute movement; soil compaction, air and aeration. Prereq: Physics 103; Soil Sci 301 or consent of instructor
Typically Offered: Spring

SOIL SCI 323 Soil Biology Credits: 3
Nature, activities and role of organisms inhabiting soil. Effects of soil biota on ecosystem function, response to cultural practices, and impacts on environmental quality, including bioremediation of contaminated soils. Prereq: Chem 104 and Botany 130 or equiv
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SOIL SCI 324 Soils and Environmental Quality Credits: 3
Interaction of soils with environmental contaminants and the role of soils in pollution control. Prereq: Chem 103 & 104 or equiv; Jr st
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SOIL SCI 325 Pedology Credits: 3
Study and description of soils as integral elements of the landscape. Mechanisms of soil development. Morphological features and spatial relationships governing soil classification and the functionality of soil for multiple land use purposes. Field trips. Prereq: Soil Sci 230, 301 or equivalent; or consent of instructor
Typically Offered: Fall

SOIL SCI 326 Plant Nutrition Management Credits: 3
Functions, requirements and uptake of essential plant nutrients; chemical and microbial processes affecting nutrient availability; diagnosis of plant and soil nutrient status; fertilizers and efficient fertilizer use in different tillage systems. Prereq: Soil Sci 230 or 301 and one of the following: Bot 100 or 130; Hort 120 or 122; Agron 100
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SOIL SCI 327 Turfgrass Nutrient and Water Management Credits: 3
Nutrient requirements of turfgrasses; nature of turfgrass response to fertilization; soil and tissue testing methodology and interpretation; irrigation scheduling; irrigation water quality; use of irrigation and fertilizer to minimize environmental impact; writing effective nutrient management plans. Prereq: Soil Sci/Hort/Agron 326
L&S Level: Intermediate Typically Offered: Fall

SOIL SCI 328 Diagnosing and Monitoring Pest and Nutrient Status of Field Crops Credits: 1
This course is designed to provide students with information necessary to diagnosis and monitor corn, soybean, alfalfa and wheat for pests (insects, weeds, diseases) and nutrient deficiency symptoms including perspectives from Agronomy, Entomology, Horticulture, Plant Pathology and Soil Science. Proper soil and pest sampling information will be provided as will proper crop staging techniques which are essential for pest and nutrient management. Prereq: None
Typically Offered: Spring

SOIL SCI 330 Grassland Ecology Credits: 3
Understand factors driving global, continental, regional, and local distribution of grasslands. Discuss how management affects provision of grassland ecosystem goods and services. Compare and contrast plant community and ecosystem dynamics in native prairie and intensively managed pastures. Prereq: Intro crse in Agronomy, Botany, or Soil Sci; or Bot/Zoo/Biol 151-152; or Biocore 301 or 333
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SOIL SCI 332 On-Site Waste Water Treatment and Dispersal Credits: 2
On-site treatment and dispersal of waste water from homes, commercial sources and small communities. Sources, pretreatment units, nutrient removal units, constructed wetlands, surface and soil dispersal systems, recycle and reuse systems, regulations, alternative collection systems. Prereq: Chem 103
Typically Offered: Fall

SOIL SCI 335 Special Topics Credits: 1 - 6
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer
SOIL SCI 399 Coordinative Internship/Cooperative Education Credits: 1 - 8
Prereq: So, Jr or Sr st and cons of supervising inst, advisor, and internship program coordinator
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOIL SCI 400 Study Abroad in Soil Science Credits: 1 - 6
Provides an area equivalency for courses taken on Madison Study Abroad Programs that do not equate to existing UW courses. Prereq: Current registration in a U.W.-Madison Study Abroad Program
Typically Offered: Fall, Spring, Summer

SOIL SCI 425 Environmental Microbiology Credits: 3
Microbial interactions in soils, water, extreme environments and biofilms. Modern methods for studying microbial ecology. role of microbes in nutrient cycles and biogeochemistry. Use of microbes for mitigating manmade environmental problems of industrial, agricultural, and domestic origin. Prereq: Bact 303, Chem 341 or 343
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOIL SCI 431 Soils of the World Credits: 1
A overview of the soils of the world and the grand environmental challenges that face humanity. Soils of the USA and Wisconsin included. Prereq: None
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOIL SCI 451 Environmental Biogeochemistry Credits: 3
Emphasis is given to a consideration of the processes influencing the distribution and cycling of chemical elements in native and anthropogenic ecosystem-level cycles of elements, and biogeochemical cycling in major soil-biome systems. Prereq: Chem 103-104 or equivalent
Typically Offered: Spring

SOIL SCI 468 Managing the Environmental Impacts of Livestock Operations Credits: 2
Introduces nonpoint pollution policies and regulations and environmental losses impacting air and water quality. Discuss management practices that influence the cycling and balance of nitrogen and phosphorus across a farm and its components (livestock, crop and soil). Prereq: Jr st
Typically Offered: Spring

SOIL SCI 472 Animal Agriculture and Global Sustainable Development Credits: 1
This course examines issues related to global agriculture and healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies, students will learn the interdependence between US agriculture and agriculture in emerging economies. Some topics covered include population and food, immigration, the environment; crop and livestock agriculture; global trade; sustainability; food security, the role of women in agriculture, and the role of dairy products in a healthy diet. Prereq: None
Typically Offered: Fall

SOIL SCI 473 International Field Study in Animal Agriculture and Sustainable Development Credits: 2
This course is the field study component to DY SCI 472, which examines issues related to global agriculture and healthy sustainable development. Using a regional approach and focusing on crops and livestock case studies, students will learn the interdependence between US agriculture and agriculture in emerging economies. Some topics covered include population and food, immigration, the environment; crop and livestock agriculture; global trade; sustainability; and the role of women in agriculture and the role of dairy products in a healthy diet. Prereq: DY SCI 472
Typically Offered: Spring

SOIL SCI 499 Soil Management Credits: 3
A capstone applying independent and team problem solving, critical thinking and oral and written communication skills to issues in soil science. Prereq: Sr or 2nd sem Jr majoring in soil sci or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SOIL SCI 523 Soil Microbiology and Biochemistry Credits: 3
Transformations of nutrients and contaminants in soils and groundwater by microorganisms: emphasis on enzymatic mechanisms and metabolic pathways. Approaches for analyzing microbial populations and activities including molecular techniques. Applications of microbial activities for bioremediation of contaminated soils and groundwater. Prereq: Chem 104; Bact 303 or Bot 375 or Biochem 501, or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
SOIL SCI 524 Urban Soil and Environment Credits: 3
Many environmental issues related to urbanization are derived from the manipulation of soil. By coupling contemporary literature in urban soils with soil science, students will be able to evaluate environmental issues within the urban environment and provide new ways of remediating their impact. Prereq: Soil Sci 301 or 230
Typically Offered: Spring

SOIL SCI 525 Soil Geomorphology Credits: 3
Soil development as related to landscape throughout the Quaternary; focusing on the relationship of soils to climate and vegetation, landscape evolution, and time; principles of soil stratigraphy; case histories of soil geomorphic studies; field trips. Prereq: Soil Sci 325 or Geog/Soil Sci 431; & an intermed level crse in geomorphology; or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOIL SCI 526 Human Transformations of Earth Surface Processes Credits: 3
This course takes an earth systems approach to explore the role of human societies in shaping earth surface processes from local to global scales. We address how alterations to our landscapes and waterways affect biological, physical and chemical interactions among our biosphere, geosphere, hydrosphere and atmosphere. We discuss methods used to distinguish the "human impact" from background variability. Prereq: Junior standing or GEOG/ENVIR ST 120
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOIL SCI 532 Environmental Biophysics Credits: 3
Plant-environment interactions with particular reference to energy exchanges and water relations. Models are used to provide a quantitative synthesis of information from plant physiology, soil physics, and micrometeorology with some consideration of plant-pest interactions. Prereq: Intro calc, Physics 103, Botany 130 & comp programing; or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOIL SCI 575 Assessment of Environmental Impact Credits: 3
Overview of methods for collecting and analyzing information about environmental impacts on agricultural and natural resources, including monitoring the physical environment and relating impacts to people and society. Prereq: Jr st. Authorization may be required
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

SOIL SCI 601 Special Topics in Soil Science Credits: 1 - 3
Topics in various areas of soil science. Prereq: Jr st
Typically Offered: Fall, Spring, Summer

SOIL SCI 606 Colloquium in Environmental Toxicology Credits: 1
Current topics in molecular and environmental toxicology and problems related to biologically active substances in the environment. Topics vary each semester. Lectures are by resident and visiting professors and other researchers.. Prereq: Biology/Zoology 101, Biology/Botany 130, or equivalent
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOIL SCI 621 Soil Chemistry Credits: 3
Solubility relationships, complex ions, ion exchange and oxidation-reduction reactions in soils. Prereq: Chem 221; Soil Sci 326; or consent of instructor
Typically Offered: Spring

SOIL SCI 622 Soil Physics Credits: 3
Typically Offered: Fall

SOIL SCI 623 Microbiology of Waterborne Pathogens and Indicator Organisms Credits: 3
Source, environmental fate and transport of major groups of waterborne pathogens, including epidemiology and testing of associated indicator organism. Management and treatment technologies for prevention of pathogen transmission. Prereq: Soil Sci 523 or Civ Engr 322 or consent of instructor
Typically Offered: Fall
SOIL SCI 626 Mineral Nutrition of Plants Credits: 3
Essential and beneficial elements, solutions and soil as nutrient sources, rhizosphere chemistry, nutritional physiology, ion uptake and translocation, functions of elements, nutrient interactions, genetics of plant nutrition. Prereq: Botany 350 or cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

SOIL SCI 631 Toxicants in the Environment: Sources, Distribution, Fate, & Effects Credits: 3
Nature, sources, distribution, and fate of contaminants in air, water, soil, and food and potential for harmful exposure Prereq: Chem 343 & 345 or equiv; Chem 561 or equiv; Physics 103 & 104 or equiv; Math 211; or cons inst L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

SOIL SCI 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy Typically Offered: Occasionally

SOIL SCI 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Prereq: Honors program candidacy & Soil Sci 681 Typically Offered: Fall, Spring

SOIL SCI 695 Applications of Geographic Information Systems in Natural Resources Credits: 3
Course has four components: 1) Detailed review of GIS concepts; 2) Case studies; 3) GIS implementation methods; 4) Laboratory to provide “hands-on” GIS experience. Prereq: Land Arc/Envir St/Civ Engr 655 or Geog 377 or cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

SOIL SCI 699 Special Problems Credits: 1 - 3
Prereq: Sr st and cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOIL SCI 728 Graduate Seminar Credits: 1
Topical oral presentations by guest speakers and graduate students on contemporary concerns and issues involving land and soils. Prereq: Grad st Typically Offered: Fall, Spring

SOIL SCI 799 Practicum in Soil Science Teaching Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis of teaching performance. Prereq: Grad st & cons inst Typically Offered: Fall, Spring, Summer

SOIL SCI 875 Special Topics Credits: 1 - 4
Of current interest to graduates. Prereq: Grad st and cons inst Typically Offered: Occasionally

SOIL SCI 990 Research Credits: 1 - 12
Prereq: Grad st & cons inst Typically Offered: Fall, Spring, Summer
AIR, MILITARY & NAVAL SCIENCE

AIR FORCE AEROSPACE STUDIES

A F AERO 101 The Foundations of the United States Air Force I Credits: 1
Introduces students to the Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills. Leadership lab activities. Open to all students. Prereq: Open to Freshmen
Typically Offered: Fall

A F AERO 102 The Foundations of the United States Air Force II Credits: 1
Continuation of 101. Leadership lab activities. Open to all students. Prereq: Open to Freshmen
Typically Offered: Spring

A F AERO 201 The Evolution of US Air and Space Power I Credits: 1
Examines air and space power through a historical perspective. Covers a time period from the first balloons to the space-age global positioning system. Further develops communication skills. Leadership lab activities. Open to all students. Prereq: Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A F AERO 202 The Evolution of US Air and Space Power II Credits: 1
Continuation of 201. Leadership lab activities. Open to all students. Prereq: Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A F AERO 301 Leadership Studies I Credits: 3
Topics include leadership, management fundamentals, professional knowledge, personnel and evaluation systems. Includes leadership ethics and communication skills required of an Air Force junior officer. Case studies to exercise practical applications of the course content. Includes leadership lab activities.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A F AERO 302 Leadership Studies II Credits: 3
Continuation of 301. Includes leadership lab activities.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

A F AERO 401 National Security Affairs Credits: 3
Examines national security, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics include military as a profession, officership, military justice, civilian control, preparation for active duty, and current military issues. Final refinement of communication skills. Includes leadership lab activities.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A F AERO 402 Preparation for Active Duty Credits: 3
Continuation of 401. Includes leadership lab activities.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MILITARY SCIENCE

MIL SCI 101 Foundations of Officership Credits: 1
Introduces students to life as a commissioned officer profession. Establishes fundamentals of leadership, Army values and skills required of a successful Army officer. Prereq: Open to Freshmen & Sophomore only
Typically Offered: Fall, Spring
MIL SCI 102 Basic Leadership Credits: 1
Establishes foundation of basic leadership fundamentals such as problem solving, communications, briefing and effective writing, goal setting, techniques for improving listening and speaking skills and an introduction to counseling. Prereq: Open to Freshmen & Sophomore only
Typically Offered: Spring

MIL SCI 110 Leadership Lab 1A Credits: 1
Students use the coursework acquired in class to develop proficiency with hands-on experience in a field environment. Specific activities include military navigation, employment of communications and weapon systems, rappelling, and small unit tactics. Prereq: Cons of department head; con reg in Mil Sci 101. Open to Fr
Typically Offered: Fall

MIL SCI 111 Leadership Lab 1B Credits: 1
Students continue with tasks from 110 lab. Prereq: Cons of department head; con reg in Mil Sci 102. Open to Fr
Typically Offered: Spring

MIL SCI 201 Individual Leadership Studies Credits: 2
Students identify successful leadership characteristics through observation of others and self through experiential learning exercises. Students record observed traits (good and bad) in a dimensional leadership journal and discuss observations in small group settings. Students will also learn map reading and land navigation skills, including conversion of magnetic and grid azimuths and resection. Prereq: Open to Freshmen & Sophomore only
Typically Offered: Fall

MIL SCI 202 Leadership and Teamwork Credits: 2
Study examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing the decision, creativity in the problem solving process and obtaining team buy-in through immediate feedback. Prereq: Open to Freshmen & Sophomore only
Typically Offered: Spring

MIL SCI 210 Leadership Lab 2A Credits: 1
Students in this course will implement small unit tactical training, learning Army methods for approaching and reacting to tactical situations. This course will cover land navigation skills, information processing skills, and Army leadership principles. Prereq: Cons of department head; con reg in Mil Sci 201. Open to Fr
Typically Offered: Fall

MIL SCI 211 Leadership Lab 2B Credits: 1
Students in this course learn Army organization and planning methods, and have the opportunity to practice and implement these methods in practical exercises. Prereq: Cons of department head; con reg in Mil Sci 202. Open to Fr
Typically Offered: Spring

MIL SCI 301 Leadership and Problem Solving Credits: 2
Students conduct self-assessment of leadership style, develop personal fitness regimen, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem solving techniques. Students receive direct feedback on leadership abilities. Prereq: Consent of head of department
Typically Offered: Fall

MIL SCI 302 Leadership and Ethics Credits: 2
Examines the role communications, values and ethics play in effective leadership. Topics include ethical decision-making, consideration of others and survey Army leadership doctrine. Emphasis is on improving oral and written communication abilities, and increasing small unit tactics skills. Prereq: Consent of head of department
Typically Offered: Spring

MIL SCI 310 Leadership Lab 3A Credits: 1
Small unit tactical troop leading procedures are taught and practiced. Hand signals, operations orders, and land navigation skills are perfected for preparation for national advanced leadership camp. Prereq: Cons of department head; con reg in Mil Sci 301
Typically Offered: Fall
MIL SCI 311 Leadership Lab 3B Credits: 1
Students in this course learn in-depth leadership procedures, and have the opportunity to practice the Army planning process for groups of 30 personnel. They also learn how to conduct Army training and classes so that they can teach other cadets based on their prior knowledge. Prereq: Cons of department head; con reg in Mil Sci 302
Typically Offered: Spring

MIL SCI 401 Leadership and Management Credits: 2
Develop students' proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Students explore training management methods of effective staff collaboration, and developmental counseling techniques. Prereq: Consent of head of department
Typically Offered: Fall

MIL SCI 402 Officership Credits: 2
Study includes fundamentals of military law, administrative and logistics procedures and practical exercises on establishing an ethical command climate. Presentations, briefings and leadership positions are used to train and evaluate students throughout the semester. Prereq: Consent of head of department
Typically Offered: Spring

MIL SCI 410 Leadership Lab 4A Credits: 1
Students in this course learn how to allocate resources and time to adequately train large groups of people. They practice creating training plans, and bringing together all of the elements necessary to complete training. They also have the opportunity to aid in the evaluation of others leadership, which gives them the ability to better review their own leadership. Prereq: Cons of department head; con reg in Mil Sci 401
Typically Offered: Fall

MIL SCI 411 Leadership Lab 4B Credits: 1
Students in this course learn the final elements of an Army officer's job. They mentor and plan training, as well as monitor the effectiveness of others. They learn fine points of improving others performance and getting the most out of subordinates. Prereq: Cons of department head; con reg in Mil Sci 402
Typically Offered: Spring

MIL SCI 491 American Military History Credits: 3
Surveys the American military experience from the Colonial Era to the present. Students will focus on learning about: the nature of combat, the impact of new technology on warfare, the relationship between civilian and military authorities, the impact of leadership, and the influence of political, social, and economic factors on military operations.
Typically Offered: Spring

NAVAL SCIENCE

NAV SCI 101 Introduction to Naval Science Credits: 2
Introduction to the naval profession emphasizing the missions, organization, and components of the Navy and Marine Corps. Topics include terminology, military justice, job specialties, seapower, and naval leadership. Includes lab. Intended for first year Naval ROTC students. Prereq: None
Typically Offered: Fall

NAV SCI 102 Seapower-Maritime Affairs Credits: 3
Historical survey of the U.S. Navy and American concepts of seapower from 1775 to the present. Includes the evolution of maritime strategy in support of U.S. National Strategy. Current issues in maritime affairs. Includes lab. Open to non-ROTC students on a space available basis, with consent of instructor. Prereq: None
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

NAV SCI 175 Introductory Naval Laboratory I Credits: 0 - 1
Laboratory class covering officer education in naval orientation and other topics dealing with the professional development of future naval officers. Intended for freshman NROTC students. Prereq: Enrolled in Naval ROTC program
Typically Offered: Fall
NAV SCI 176 Introductory Naval Laboratory II Credits: 0 - 1
Laboratory class covering officer education in naval sea power and other topics dealing with the professional
development of future naval officers. Intended for freshman NROTC students. Prereq: Enrolled in Naval ROTC
program
Typically Offered: Spring

NAV SCI 201 Naval Leadership and Management Credits: 3
A study of organizational behavior and management within the context of the naval organization. Topics include
a survey of managerial functions and a study of behavioral aspects of organizations with emphasis on motivation
and leadership. Includes lab. Open to non-ROTC students on a space available basis, with consent of instructor.
Prereq: None
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NAV SCI 202 Navigation Credits: 3
Introduction to concepts and techniques used to navigate U.S. Navy and civilian ships. Charts and publications,
compasses, tides and currents, dead reckoning, piloting, celestial and electronic navigation; day's work in
navigation and Nautical Rules of the Road. Includes lab. Open to non-ROTC students on a space available basis,
with consent of instructor. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NAV SCI 275 Elementary Naval Laboratory I Credits: 0 - 1
Laboratory class covering officer education in naval engineering and other topics dealing with the professional
development of future naval officers. Intended for sophomore NROTC students. Prereq: Enrolled in Naval
ROT program
Typically Offered: Fall

NAV SCI 276 Elementary Naval Laboratory II Credits: 0 - 1
Laboratory class covering officer education in naval weapons and other topics dealing with the professional
development of future naval officers. Intended for sophomore NROTC students. Prereq: Enrolled in Naval
ROT program
Typically Offered: Spring

NAV SCI 301 Naval Engineering Credits: 3
The basic principles and components of ship propulsion systems including steam, diesel, gas turbine, and nuclear
power plants. Other topics include ship construction, buoyancy and stability, damage control, electrical
distribution, and air conditioning/ refrigeration. Includes lab. Open to non-ROTC students on a space available
basis, with consent of instructor. Prereq: None
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NAV SCI 302 Naval Weapons Credits: 3
Introduction to the properties and behavior of electronic, electromagnetic, and mechanical systems used in naval
weapons systems. Topics and concepts include wide range of academic disciplines, all of which are applied to the
maritime uses of radar, sonar, communications, electro-optics, computers, missile, and electronic warfare
systems. Open to non-ROTC students on a space available basis, with consent of instructor. Prereq: None
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NAV SCI 350 Amphibious Campaigns Credits: 3
History of amphibious warfare and the development of the concepts, principles, and techniques of amphibious
operations through study of selected examples from modern history. Includes lab. Open to non-ROTC students
on a space available basis, with consent of instructor. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NAV SCI 351 Land Campaigns Credits: 3
Evolution of weapons, strategy, tactics and material; the classic principles of war by study of selected battles and
campaigns; survey of military and foreign policy, basic strategic concepts, and principles of warfare. Includes lab.
Open to non-ROTC students on a space available basis, with consent of instructor. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NAV SCI 375 Intermediate Naval Laboratory I Credits: 0 - 1
Laboratory class covering officer education in naval navigation and other topics dealing with the professional
development of future naval officers. Intended for junior NROTC students. Prereq: Enrolled in Naval ROTC
program
Typically Offered: Fall
NAV SCI 376 Intermediate Naval Laboratory II Credits: 0 - 1
Laboratory class covering officer education in naval operations and other topics dealing with the professional development of future naval officers. Intended for junior NROTC students. Prereq: Enrolled in Naval ROTC program
Typically Offered: Spring

NAV SCI 401 Naval Operations Credits: 3
In depth study of the professional and efficient operation of U.S. Navy ships. Fleet communications, tactical employment, relative motion plotting, seamanship, and a lecture series on Joint Warfare and the Employment of Naval Forces as an element of National Security Strategy. Open to non-ROTC students on a space available basis, with consent of instructor. Prereq: None
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NAV SCI 402 Naval Leadership and Ethics Credits: 3
Capstone course. Integrates an exploration of Western moral traditions and ethical philosophy with military leadership, professional ethics, and the Uniform Code of Military Justice. Includes lab. Intended for Senior NROTC students. Open to non-ROTC students on a space available basis, with consent of instructor. Prereq: None
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NAV SCI 475 Advanced Naval Laboratory I Credits: 0 - 1
Laboratory class covering officer education in naval management and other topics dealing with the professional development of future naval officers. Intended for senior NROTC students. Prereq: Enrolled in Naval ROTC program
Typically Offered: Fall

NAV SCI 476 Advanced Naval Laboratory II Credits: 0 - 1
Laboratory class covering officer education in naval leadership and other topics dealing with the professional development of future naval officers. Intended for senior NROTC students. Prereq: Enrolled in Naval ROTC program
Typically Offered: Spring

NAV SCI 575 Professional Naval Laboratory I Credits: 0 - 1
Laboratory class covering officer education in naval orientation and other topics dealing with the professional development of future naval officers. Intended for senior NROTC students. Prereq: Enrolled in Naval ROTC program
Typically Offered: Fall

NAV SCI 576 Professional Naval Laboratory II Credits: 0 - 1
Laboratory class covering officer education in naval orientation and other topics dealing with the professional development of future naval officers. Intended for senior NROTC students. Prereq: Enrolled in Naval ROTC program
Typically Offered: Spring
ACCT IS 100 Introductory Financial Accounting Credits: 3
Examines generally accepted accounting principles for measurement and reporting of financial information in a balance sheet, income statement, and statement of cash flows; introduction to analysis and interpretation of financial accounting data for decision-making purposes. Prereq: A cumulative GPA of 2.5 or higher. Not open to 1st sem Fr. Cr is not given for both Acct IS 100 & 300
Typically Offered: Fall, Spring, Summer

ACCT IS 211 Introductory Managerial Accounting Credits: 3
Managerial accounting concepts relevant for decision-making; use of accounting information for planning, decision-making, and control of business operations in various management and business environments. Prereq: Acct IS 100
Typically Offered: Fall, Spring, Summer

ACCT IS 300 Accounting Principles Credits: 3
Introduction to accounting from a user's perspective. Covers both financial and managerial accounting. Accounting theory principles, presentation and interpretation of financial reports, financial statement analysis, measurement, classification, planning and control of costs. Prereq: Junior standing. Satisfaction of QRA. Credit is not given for both Acct IS 100 & 300
General Education: QR-B  Typically Offered: Fall, Spring, Summer

ACCT IS 301 Financial Reporting I Credits: 3
Examines current and emerging financial accounting theory and techniques used to measure and report financial information to investors, creditors, and other external users. Emphasizes asset and income determination, preparation and interpretation of financial statements, and related disclosure requirements. Prereq: Acct IS 100
Typically Offered: Fall, Spring, Summer

ACCT IS 302 Financial Reporting II Credits: 3
Examines current and emerging financial accounting theory and techniques used to measure and report financial information to investors, creditors, and other external users, including dilutive securities, investments, revenue recognition, income tax allocation, pensions, leases and accounting changes. Prereq: So, Jr or Sr st; Acct IS 301
Typically Offered: Fall, Spring, Summer

ACCT IS 310 Cost Management Systems. Credits: 3
Typically Offered: Fall, Spring, Summer

ACCT IS 329 Taxation: Concepts for Business and Personal Planning Credits: 3
An introduction to the U.S. income taxation concepts with emphasis on business and personal planning strategies. Taxes are placed in a framework which considers all costs of doing business. Includes approaches and skills needed to prepare individual, corporate, and partnership income tax returns. Prereq: Acct IS 100 or 300, or Law 811, or consent of instructor
Typically Offered: Fall, Spring
ACCT IS 340 Accounting Systems Credits: 3
Principles and problems of system design; organization for accounting control, internal control procedures and internal reports. Developing control, security, and auditability into information system applications. Prereq: Sophomore, Junior or Senior standing; Acct IS 211
Typically Offered: Fall

ACCT IS 365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisite varies by topic
Typically Offered: Occasionally

ACCT IS 399 Reading and Research-Accounting Credits: 1 - 6
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ACCT IS 406 Advanced Financial Reporting Credits: 3
Theoretical, procedural, and practical issues associated with the preparation of financial statements of alternative reporting entities, including the accounting for mergers and acquisitions, consolidations, foreign operations, and complex financial instruments. Prereq: Acct IS 302
Typically Offered: Fall, Spring, Summer

ACCT IS 600 Accountancy Internship and Practice Research Credits: 3 - 6
The internship program represents an opportunity for students to experience a professional accounting practice first hand and to integrate this experience with their formal education. Prereq: Sr st; admitted MACC stdt; Acct IS 620 or 630; con reg in Acct IS 601
Typically Offered: Spring

ACCT IS 601 Professional Practice Issues in Accounting and Auditing Credits: 3
Study of current accounting and audit issues within a case context. Students will be required to perform computerized research, analyze topical accounting and audit issues, and make case presentations. Intensive three week course to build on experiences developed during the internship program. Prereq: Sr st; admitted MACC stdt; Acct IS 620 or 630; con reg in Acct IS 600
Typically Offered: Spring

ACCT IS 603 Financial Statement Analysis Credits: 3
Analysis and interpretation of financial statements, including profitability and ratio analysis, cash flow analysis, accounting-based equity valuation, market impact of accounting choices, earnings quality, earnings management, mergers and acquisitions, intangibles, accounting-based trading strategies, accounting and credit ratings, and international accounting. Prereq: Acct I S 301
Typically Offered: Fall, Spring, Summer

ACCT IS 620 Fundamentals of Taxation Credits: 3
Application of federal tax provisions and administrative rules common to most taxpayers with introductions to rules specific to corporations, pass-through entities, and individuals. Prereq: Acct IS 301. Con reg in both Acct IS 301 & 620 allowed
Typically Offered: Fall, Spring, Summer

ACCT IS 621 Corporate and Advanced Taxation Credits: 3
Application of federal tax provisions and administrative rules pertaining to corporations and shareholders, including elective provisions for "S" corporations. Emphasis on tax planning and the consequences of corporate and shareholder decisions. Prereq: ACCT I S 620
Typically Offered: Fall

ACCT IS 630 Audit and Assurance Services Credits: 3
Evolution of assurance services; role of assurance services as part of corporate governance; professional standards and ethical concepts; evidence concepts and evaluation of evidence, business and information technology risk analysis, the audit risk model, assurance reports, and development of audit and assurance programs. Prereq: Senior standing and ACCT I S 301
Typically Offered: Fall, Spring
ACCT IS 631 Information Technology, Risk, and Assurance Services Credits: 3
Operational and information systems auditing; risk analysis, electronic evidence; computerized audit and assurance techniques; internal auditing and outsourcing; analytical techniques; auditor judgment; control concepts, business process risk analysis; reporting on controls and business processes; expanding technology and assurance. Prereq: Acct IS 630; Acct IS 340 or Info Sys 320
Typically Offered: Fall

ACCT IS 700 Financial Accounting Credits: 3
Measurement and reporting guidelines underlying preparation of general purpose financial statements; current measurement and reporting issues; analysis and interpretation of financial statement data for investment, lending, and related decisions. Prereq: Grad st
Typically Offered: Occasionally

ACCT IS 701 Financial Reporting I Credits: 3
Examines current and emerging financial accounting theory and techniques used to measure and report financial information to investors, creditors, and other external users. Emphasizes asset and liability valuations and their relationships to income determination, preparation and interpretation of financial statements, and related disclosure requirements. Prereq: Acct IS 700
Typically Offered: Occasionally

ACCT IS 702 Financial Reporting II Credits: 3
Examines current and emerging financial accounting theory and techniques used to measure and report financial information to investors, creditors, and other external users, including dilutive securities, investments, revenue recognition, income tax allocation, pensions, leases and accounting changes. Prereq: Acct IS 701
Typically Offered: Occasionally

ACCT IS 706 Advanced Financial Reporting Credits: 3
Accounting principles related to formation, maintenance, expansion, contraction and liquidation of the business enterprise. Prereq: Acct IS 701 or equiv
Typically Offered: Occasionally

ACCT IS 710 Managerial Accounting Credits: 3
Interpretation and use of accounting data for management planning, decision making and control. Consideration of cost-volume-profit relationships, relevant costs, variable (direct) costing, activity-based costing, transfer pricing and performance evaluation of segments of the firm. Prereq: Acct IS 700 or equiv
Typically Offered: Occasionally

ACCT IS 711 Strategic Cost Management Credits: 2
Development and analysis of cost and other performance measurement information for managerial planning, control, and decision-making. Integration of information needs for various managerial functions. Prereq: Acct IS 700
Typically Offered: Occasionally

ACCT IS 722 Taxation of Pass-Through Entities Credits: 3
Analysis of federal tax provisions and administrative rules regarding pass-through entities, such as partnerships, S-corporations, and limited liability companies; including their application to entity formation and operation, property and ownership basis, distributions, and interest transfers. Prereq: Acct IS 620
Typically Offered: Occasionally

ACCT IS 723 Federal Estate and Gift Taxation Credits: 3
A study of estate and gift transfer taxes; problems requiring investigation of concepts and theories of taxable gifts and estates; estate planning. Prereq: Gen Bus 301 or equiv
Typically Offered: Occasionally

ACCT IS 724 Research and Administrative Issues in Taxation Credits: 3
Methodologies and tools for tax research; utilization of tax research tools; preparation of investigative reports; professional and interprofessional responsibilities; administrative procedures and techniques. Prereq: Acct IS 620
Typically Offered: Occasionally
ACCT IS 725 Taxation of Cross-Jurisdictional Transactions Credits: 3
An introduction to international and multistate tax issues. Topics covered may include tax treaties, foreign tax
credit provisions, Subpart F rules, multistate apportionment, nexus, sales tax, and use tax. Prereq: Acct IS 620
Typically Offered: Occasionally

ACCT IS 726 Advanced Corporate Taxation Credits: 3
This course addresses the application of federal tax law to a variety of complex corporate tax topics and analysis
on corporations and their shareholders. Primary legal sources of the code, regulations, and case law are applied
to determine the tax treatment for advanced topics such as: 1) Tax and non-tax factors considered by buyers and
sellers in both stock and asset acquisitions, 2) Taxable asset acquisitions, 3) Consolidations, 4) Divestitures and
divisive D reorganizations, and 5) Codification of the economic substance doctrine. The emphasis of the class in
regard to these topics is on tax planning and the consequences of corporate and shareholder decisions. Prereq:
ACCT IS 620 and A
Typically Offered: Spring

ACCT IS 765 Contemporary Topics Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

ACCT IS 770 Seminar in Financial Reporting Theory Credits: 3
Intensive study and critical examination of accounting and financial reporting theories, concepts and standards;
evaluations of the pronouncements of accounting standard-setters and financial reporting regulators. Prereq:
Acct IS 302 or 702
Typically Offered: Occasionally

ACCT IS 771 Seminar in Strategic Cost Management and Performance Measurement Credits: 3
Development and analysis of accounting data for managerial planning, control, decision-making, and costing.
Integration of financial and non-financial information needs for various managerial functions. Prereq: Graduate
standing and Acct IS 710 or equivalent
Typically Offered: Occasionally

ACCT IS 772 Seminar in Current Taxation Topics Credits: 3
Readings and cases in taxation; analysis and integration of related tax provisions and taxpayer impact. Prereq:
Cons inst
Typically Offered: Occasionally

ACCT IS 781 Financial and Business Acumen Credits: 1
This course is designed with a keen awareness for the needs of the non-financial student or professional. For this
class, no previous financial training is required. The intent is to equip you with the essential concepts used to
develop financial literacy. Content will cover basic financial terms and reports, analytical tools to help interpret
financial data and using financial data in budgets and forecasts. This course will not apply toward fulfilling the
MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ACCT IS 799 Reading and Research-Accounting Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the
intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ACCT IS 971 Seminar in Accounting Research Credits: 3
Methods of inquiry and research methodology in accounting. Analysis of current research, with the emphasis on
empirical research in accounting. Prereq: PhD cand in accounting or cons inst
Typically Offered: Occasionally

Individual work to complete dissertation requirement of Ph.D. program. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ACCT IS 999 Reading and Research-Accounting PhD Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during
the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally
ACT SCIENCE

ACT SCI 300 Actuarial Science Methods I Credits: 1
Develop a knowledge of fundamental mathematical tools for quantitatively assessing risk. Emphasize the applications of these tools to problems encountered in actuarial science. Prereq: MATH/STAT 309, STAT 311 or MATH/STAT 431 or concurrent registration; not open to graduate students
Typically Offered: Fall, Spring

ACT SCI 301 Actuarial Science Methods II Credits: 1
Develop a knowledge of mathematical tools for quantitatively assessing financial risk. Emphasize the applications to problems encountered in actuarial science. Prereq: Act Sci 303 or con reg; not open to Grad stdts
Typically Offered: Fall, Spring

ACT SCI 303 Theory of Interest and Life Insurance Credits: 3
Application of calculus to compound interest and insurance functions; interest compounded discretely and continuously; force of interest function; annuities payable discretely and continuously; bonds and yield rates; life tables, life annuities, single and annual premiums for insurance and annuities; reserves. Prereq: MATH 222 or MATH 276
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ACT SCI 365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Varies by topic
Typically Offered: Fall, Spring

ACT SCI 650 Actuarial Mathematics I Credits: 3
Advanced problems in the mathematical theory of life contingencies; force of mortality, laws of mortality; premiums and reserves for insurance and annuities based on a single life. Prereq: ACT SCI/MATH 303 and (MATH/STAT 309, STAT 311 or MATH/STAT 431)
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ACT SCI 651 Actuarial Mathematics II Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ACT SCI 652 Loss Models I Credits: 3
Definition and selection of probability distributions appropriate for insurance data that are heavily tailed and skewed. Prereq: MATH/STAT 309, STAT 311 or MATH/STAT 431
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ACT SCI 653 Loss Models II Credits: 3
Estimation of parameters of probability distributions appropriate for insurance data that are heavy tailed and skewed; assessment of credibility of data for ratemaking. Prereq: ACT SCI 652 and STAT 310 or STAT 312
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ACT SCI 654 Regression and Time Series for Actuaries Credits: 3
Linear regression and correlation; generalized linear regression models; introduction to time series; time series model building and forecasting with focus on data of interest to actuaries. Prereq: MATH/STAT 310 or STAT 312
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ACT SCI 655 Health Analytics Credits: 3
The overall goal of this course is to provide students with an introduction to the broad area of health, integrating how researchers from multiple perspectives have investigated various aspects of health, along with the hands-on practice of learning and using statistical tools to analyze these topics. Prereq: Junior standing and (GEN BUS 306, MATH/STAT 310 or 312)
Typically Offered: Spring

ACT SCI 765 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Varies by topic
Typically Offered: Fall, Spring
FINANCE  300 Introduction to Finance  Credits: 3
Concepts and techniques in corporate finance and investments. Topics include the financial environment,
securities markets, financial markets, financial statements and analysis, working capital management, capital
budgeting, cost of capital, dividend policy, asset valuation, investments, decision making under uncertainty,
mergers, options, and futures. Prereq: So, Jr or Sr st; Econ 101 or AAE 215; Acct IS 100 or 300; Gen Bus 303
or equiv or con reg  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FINANCE  305 Financial Markets, Institutions and Economic Activity  Credits: 3
An analysis of the U.S. financial system, its responsiveness to and impact on economic activity and policy, its
procedures for assessing and pricing risks on various financial instruments, and its role in the allocation of funds
to different sectors in the economy. Prereq: Finance 300  
Typically Offered: Fall, Spring

FINANCE  320 Investment Theory  Credits: 3
Structure and functioning of securities markets; principles of portfolio construction; models of the tradeoff between
risk and expected return. Prereq: Sophomore, Junior or Senior standing; Math 213 or 222; Finance/Econ 300; 
Gen Bus 304 or equivalent or concurrent registration  
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FINANCE  325 Corporation Finance  Credits: 3
Development of the theory, method and analytical techniques of financial management. Techniques of capital
budgeting; valuation of projects and firms; theory of capital structure; dividend policy; cost of capital; mergers and
acquisitions. Prereq: So, Jr or Sr st; Math 213 or 222; Finance/Econ 300; Gen Bus 304 or equiv or con reg; Acct
IS 301  
Typically Offered: Fall, Spring

FINANCE  330 Derivative Securities  Credits: 3
Pricing and uses of options, futures, and forward contracts. Prereq: Finance/Econ 300, Math 213 or 222, Gen
Bus 304 or equivalent (or consent required)  
Typically Offered: Fall, Spring

FINANCE  340 Fixed Income Securities  Credits: 3
This course is fully devoted to analysis of fixed income, bond markets. The objective of the class is to introduce
tools for evaluating bonds and making decisions about trading and hedging portfolios of fixed income securities.
The main focus is on government bonds and derivative securities associated with them. We will consider basic
ways to price these bonds using techniques that are well established on Wall St. The class will introduce basic trading strategies based on exploiting mis-priced
securities. Such strategies are profitable when risks are minimized, and so we will discuss several ways to
measure and minimize risk. We discuss the pricing of derivative securities such as bond opt  
Typically Offered: Fall, Spring

FINANCE  365 Contemporary Topics  Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq:
Prerequisite varies by topic  
Typically Offered: Occasionally

FINANCE  399 Reading and Research-Finance  Credits: 1 - 6
Prereq: Cons inst  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FINANCE  410 Bank Management  Credits: 3
Management of depository financial intermediaries with primary emphasis on commercial banks. Topics include
bank regulation, liquidity and reserve position management, loan pricing and analysis, investment portfolio
problems and overall asset liability management. Prereq: Finance 300  
Typically Offered: Fall, Spring
FINANCE 420 Investment Banking and Capital Markets Credits: 3
Provides a broad overview of investment banking. Topics covered include valuation, cash flow, initial public offerings, leveraged buyouts, merger and acquisitions and related corporate governance issues. Prereq: Finance 300
Typically Offered: Fall, Spring

FINANCE 445 Multinational Business Finance Credits: 3
Application of financial theory to the operations of multinational firms; survey of the international financial environment; determinants of international portfolio and direct investment capital flows; management of foreign exchange position and hedging strategies; evaluation of foreign investment projects (multinational capital budgeting); international financial structure decisions; multinational credit institutions and capital markets; taxation of international business. Prereq: Finance/Econ 300, Math 213 or 222, & Gen Bus 303 or equiv
Typically Offered: Fall, Spring

FINANCE 457 Entrepreneurial Finance Credits: 3
Discusses the tools helpful for financing new ventures, with emphasis on their applications. The course also helps students understand the institutional setting that has an impact on the financing conditions of new ventures. Prereq: Finance/Econ 300, Math 213 or 222, Gen Bus 303 or equiv, & Acct I S 301
Typically Offered: Fall

FINANCE 610 Bank Simulation and Strategy Credits: 3
This course covers advanced asset-liability, hedging, tax minimization, merger/acquisitions and economic value added strategies for depository financial institutions. Students practice these strategies by managing their own bank in a computer simulation model, merging with or acquiring other student's banks using M&A software, and by playing a foreign exchange trading simulation. Prereq: Finance 410
Typically Offered: Spring

FINANCE 635 Security Analysis Credits: 3
Financial analysis for selection of securities that are currently either under- or over-valued. Prereq: FINANCE/ECON 300 or FINANCE 700
Typically Offered: Fall, Spring

FINANCE 700 Introduction to Financial Management Credits: 3
Introduction to financial management of firms and investment decision making; both theory and practice are emphasized. Topics covered include the financial environment and securities markets, financial statements and analysis, working capital management and capital budgeting, cost of capital, dividend policy, asset valuation, investments, decision making under uncertainty and selected topics such as mergers, options, futures. Prereq: MBA students only
Typically Offered: Occasionally

FINANCE 720 Investment Theory and Practice Credits: 3
Development of the theory, instruments, techniques and practice of modern investment management. Topics include asset pricing and valuation under certainty and uncertainty, portfolio management, determination of interest rates, immunization strategies and derivative securities. Prereq: Finance 700 & OTM 705 or equiv
Typically Offered: Occasionally

FINANCE 721 Investment Theory and Application Credits: 3
Theory and practice of finance investment: financial market structure, arbitrage, theory of risk and return, behavior of financial prices, option contracts, futures and forward contracts, valuation of derivatives, interest rates, fixed-income securities, common stock and portfolio theory. Prereq: Finance 700 & OTM 705 or equiv
Typically Offered: Occasionally

FINANCE 725 Corporation Finance Theory and Practice Credits: 3
Theory and practice of financial management of firms. Techniques of capital budgeting under certainty and uncertainty; valuation of projects and firms; theory of capital structure; dividend policy; cost of capital; mergers and acquisitions. Prereq: Finance 700 or equiv
Typically Offered: Occasionally

FINANCE 726 Valuation and Corporate Investment Decisions Credits: 3
Typically Offered: Occasionally
FINANCE 727 Raising Capital & Financing the Firm Credits: 3
Theory and practice of corporation finance: financial security contracts; security issuance; capital structure; dividend policy; cost of capital; financial risk management; mergers, acquisitions, and financial restructuring. 
Prereq: Finance 700
Typically Offered: Occasionally

FINANCE 735 Introduction to Applied Security Analysis Credits: 2
Only open to students in the Applied Security Analysis Program (ASAP). Focuses on industry analysis and security selection, with particular emphasis on identification of value drivers and on communicating the idea to a portfolio manager. Prereq: Open to MBA Applied Security Analysis Program stdts only
Typically Offered: Fall

FINANCE 736 Introduction to Applied Portfolio Management Credits: 2
The spring semester course for first year students in Applied Security Analysis Program (ASAP). Focuses on portfolio management, including development and implementation of the decision making process. Prereq: Open to MBA Applied Security Analysis Program students only
Typically Offered: Spring

FINANCE 740 Analysis of Fixed Income Securities Credits: 3
Detailed coverage of fixed income securities and their derivatives; asset backed/mortgage backed securities; pricing and portfolio strategies; term structures models and other analytical tools. Prereq: Finance 700 and General Business 704
Typically Offered: Occasionally

FINANCE 745 Multinational Business Finance Credits: 3
Theory of business finance as applied to the operations of multinational firms; financial analysis and control of foreign investment decisions; working capital management; multinational credit institutions and capital markets; special accounting problems and trends in international monetary affairs. Prereq: Finance 700 or equiv
Typically Offered: Occasionally

FINANCE 750 Mergers and Acquisitions Credits: 3
Study of the market for corporate control including mergers and tender offers. Motives for business combinations; impacts on security holders, managers, labor, economic efficiency; federal and state laws; offensive and defensive strategies. Term paper involving comprehensive analysis of issues. Prereq: Finance 700 and, either Finance 726 or Finance 635
Typically Offered: Occasionally

FINANCE 755 Corporate Restructuring & Reorganization Credits: 3
Financial policy decisions such as working capital management, dividend policy, capital structure and cost. Case studies emphasized. Prereq: Finance 700 and either Finance 726 or Finance 635
Typically Offered: Occasionally

FINANCE 757 Entrepreneurial Finance Credits: 3
About a half of all new businesses fail in the first five years. This course offers the tools, state-of-the-art valuation methods, and practical knowledge that are needed to make appropriate financing decisions in such highly uncertain environments. Prereq: Finance 700, OIM 705 or equiv & Acct I S 700 or equiv
Typically Offered: Occasionally

FINANCE 765 Contemporary Topics Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

FINANCE 799 Reading and Research-Finance Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally

FINANCE 830 Advanced Derivative Securities Credits: 3
This course covers the design of new financial securities, advanced techniques for pricing and measuring the risks of derivative securities, and strategies employing derivative securities. Applications include the pricing and use of swaps, mortgage-backed securities, exotic options, and corporate securities with embedded options. Prereq: Finance 720 or equiv
Typically Offered: Occasionally
FINANCE  835 Applied Security Analysis and Investment Management I Credits: 5
The management of an actual portfolio of investments. Students engage in security analysis, develop a portfolio policy, and participate in field research such as trips to interview the management of potential portfolio acquisitions. Prereq: Cons inst
Typically Offered: Occasionally

FINANCE  836 Applied Security Analysis and Investment Management II Credits: 4
Continuation of Finance 835. Prereq: Finance 835 & cons inst
Typically Offered: Occasionally

FINANCE  850 Applied Corporate Finance I Credits: 4
Advanced corporate finance course that provides graduate students practical experience by working on consulting projects. Students work on applied projects in the areas of capital budgeting, capital structure and cash distribution policies. Emphasis on application of theoretical corporate finance concepts. Prereq: Cons inst
Typically Offered: Occasionally

FINANCE  851 Applied Corporate Finance II Credits: 5
Students apply advanced corporate finance training in the areas of real options, mergers and acquisitions, and corporate restructuring and reorganization to problems provided by corporate sponsors. Development of analytical, written and oral presentation skills through presentations to the corporate sponsors. Prereq: Finance 850 & cons inst
Typically Offered: Occasionally

FINANCE  920 Theory of Finance Credits: 3
Intensive review of modern theories of corporate finance and investments. Prereq: PhD stdt in finance or cons inst
Typically Offered: Occasionally

FINANCE  970 Seminar- Investments (Ph.D.) Credits: 3
Intensive study and critical examination of recent empirical and theoretical literature investments. Prereq: Cons inst or all of the following crses: Finance 920, 921, Econ 709, 710
Typically Offered: Occasionally

FINANCE  971 Seminar-Corporate Finance (Ph.D.) Credits: 3
Intensive study and critical examination of recent empirical and theoretical literature in corporate finance. Prereq: Cons inst or all of the following crses: Finance 920, 921, Econ 709, 710
Typically Offered: Occasionally

FINANCE  972 Topics Seminar-Finance PhD Credits: 3
Special topics of current or emerging interest in financial economics. Prereq: PhD stdt in finance or cons inst
Typically Offered: Occasionally

FINANCE  973 Seminar-Workshop in Finance Credits: 2
Seminar primarily devoted to the generation of original research in the field of finance for the Ph.D. dissertation and subsequent publication in the academic literature. Prereq: Open to PhD stdts in finance and with cons inst, to advanced Grad stdts in related fields
Typically Offered: Occasionally

Individual work to complete dissertation requirement of Ph.D. program. Prereq: Grad st & cons inst
Typically Offered: Occasionally

FINANCE  999 Reading and Research-Finance PhD Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally

GENERAL BUSINESS
GEN BUS 100 Introduction to Business Credits: 3
Introduction to the basic concepts, practices and analytical methods that are part of the market enterprise system. Overview of the basic functions: management, accounting, finance, operations, and marketing conducted within a social and ethical framework. Prereq: Open to Freshmen
Typically Offered: Occasionally

GEN BUS 110 Personal and Professional Foundations in Business Credits: 1
An introductory course for new business students covering the transition to college, academic exploration and planning, career development, self-assessment for personal development, leadership, and diversity and inclusion. Prereq: Must be admitted to the undergraduate business (BBA) program via the direct admit admission process to enroll
Typically Offered: Fall

GEN BUS 120 Personal and Professional Foundations in Business Credits: 1
An introductory course for new business students covering academic exploration and planning, career development, self-assessment for personal development, leadership, and diversity and inclusion. Prereq: Must be admitted to the undergraduate business (BBA) program to enroll and have sophomore standing, based on class year (not credits). Students self-report their class year during the BBA admission process
Typically Offered: Fall

GEN BUS 130 Personal and Professional Foundations in Business Credits: 1
An introductory course for new business students covering academic planning, career development, self-assessment for personal development, leadership, and diversity and inclusion. Prereq: Must be admitted to the undergraduate business (BBA) program to enroll and have junior standing, based on class year (not credits), or identify as a transfer student. Students self-report their class year during the BBA admission process
Typically Offered: Fall

GEN BUS 140 Teaching, Learning, and Effective Facilitation in Peer to Peer Environments Credits: 1
Introduction to effective facilitation strategies within peer to peer learning environments. Students will practice public speaking, presentation, and facilitation skills while also learning about college student development, classroom management, student engagement, and in-class assessment techniques to evaluate learning. Prereq: Students enrolled in this class must be selected through the Compass facilitator hiring process coordinated by Wisconsin BBA staff and permissioned into this course once they have accepted their job offer
Typically Offered: Fall

GEN BUS 170 Business Scholars Seminar Credits: 1
To educate students about the courses and programs in each of the academic departments in the School of Business. To inform students about career, research, service and leadership opportunities. Prereq: Open only to 1st yr bus scholar stdts
Typically Offered: Fall, Spring

GEN BUS 198 Directed Study Credits: 1
Directed study and research in business topics. Prereq: Open to Freshmen & Sophomore stdts who have been admitted to Bus Scholars Prgm
Typically Offered: Fall, Spring

GEN BUS 300 Professional Communication Credits: 3 - 4
Expository writing relative to written communications used in organizations: letters, factual memoranda, brief reports, technical research reports. Development of skills in oral and graphic communications; committee reports, staff presentations. Prereq: Sophomore, Junior or Senior standing. Not open to grad students. This course should be taken within the first two semesters after admission to the School of Business
Typically Offered: Fall, Spring, Summer

GEN BUS 301 Business Law Credits: 3
History of legal development, contracts, agency, sale of goods, insurance. Prereq: Junior or Senior standing
Typically Offered: Fall, Spring

GEN BUS 302 Business Organizations and Negotiable Instruments Credits: 3
Commercial paper, real estate and personal property, partnerships, corporations, bankruptcy. Prereq: Junior or Senior standing; Gen Bus 301
Typically Offered: Fall, Spring
GEN BUS  303 Business Statistics Credits: 3
Data collection, data structures in a business setting, frequency tables and plots, descriptive statistics, correlation tables and regression formulation, normal and binomial distributions, quality, surveys. Prereq: 1 semester calculus, at least Sophomore standing
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

GEN BUS  304 Intermediate Business Statistics Credits: 3
Methods for analyzing business and economic data. Review of classical statistical inference; multiple regression and correlation; process analysis and time series. Prereq: So, Jr, or Sr st; Math 211, 221, 222 or equiv; Gen Bus 303 or equiv
Typically Offered:  Fall, Spring

GEN BUS  306 Business Analytics I Credits: 3
This course is designed to develop quantitative intuition through practical applications and use of analysis tools. Specifically, emphasis will be on how to manage, summarize, explore, and visualize databases. The essentials of probability will be introduced and applied to decision problems where there is uncertainty. The course will also emphasize hypothesis testing and regression analysis and include an introduction to simulation methods. Throughout this course, attention will be paid to effective communication of data analysis. The use of business cases will connect the course material to both real world settings and recent advances in data analysis, including big data and data mining. P
Typically Offered:  Fall, Spring, Summer

GEN BUS  307 Business Analytics II Credits: 3
The course emphasizes hands on experience with many commonly used analytic methodologies using the modelling and optimization tools available on almost every professional desktop. The focus is predictive and prescriptive analytics. Predictive approaches use historical data to infer causal relationships and forecast future outcomes from a given action. Prescriptive methods take this a step further, helping managers formulate decision models that identify optimal actions given a set of circumstances. Prereq: GEN BUS 306
Typically Offered:  Fall, Spring, Summer

GEN BUS  310 Fundamentals of Accounting and Finance for Non-Business Majors Credits: 3
Part of a two course sequence introducing non-business students to basic concepts, practices and analytical methods that are part of the market enterprise system. This course is a basic overview on: accounting, finance, and business law. Prereq: Sophomore standing
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

GEN BUS  311 Fundamentals of Management and Marketing for Non-Business Majors Credits: 3
Introduces non-business students to basic concepts and practices in business. This course is a basic overview of: management, marketing, strategy, entrepreneurship, ethics, supply chain and international business. Prereq: Sophomore standing. Not open to students in the School of Business
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

GEN BUS  320 Intercultural Communication in Business Credits: 3
Develops awareness and knowledge of cultural influences on business. Focuses on various attitudes toward work, time, material possession, business, and the relationship of these attitudes to different social, religious, philosophical, and educational backgrounds of business people from cultures around the world. Prereq: So st
Typically Offered:  Fall

GEN BUS  365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisite varies by topic
Typically Offered:  Fall, Spring, Summer

GEN BUS  380 Business Scholars and Honors Seminar Credits: 1
Discussion and analysis of contemporary issues, events, and topics in the business world. Prereq: Open only to 2nd, 3rd & 4th yr bus scholar stdts & those admitted to Business Honors in Liberal Arts prgm
Typically Offered:  Fall, Spring

GEN BUS  399 Reading and Research-Business Research Credits: 1 - 6
Prereq: Jr or Sr st; cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer
GEN BUS 450 Professional Experience in Business  Credits: 1
Internship which allows students to augment their business education and gain professional experience in their major through related work experience. Prereq: Admitted bus stdt with So, Jr, or Sr st; cons inst required. Crse may be repeated two times. Acctg Majors: Gen Bus 450 internships are not available with firms who participate in the department's Acct IS 600 internship. See listing on acctg dept website
Typically Offered: Fall, Spring, Summer

GEN BUS 451 Professional Experience in Business-Extended Internship  Credits: 1
Only allowed for six to eight month internships which will allow students to augment their business education and gain professional experience in their major area. Students receive one credit and will remain a full-time student. Typically Offered: Fall, Spring

GEN BUS 600 Topics on Sustainable Business Practices  Credits: 3
Gives students knowledge and skills so that they can help organizations understand and act on the principles of sustainability. Main topics include sustainability as an element of strategy, the business case for sustainability, and the social side of sustainability. A real-world team project that draws on the concepts taught in the course is an important element. Prereq: Jr or Sr st
Typically Offered: Fall, Spring

GEN BUS 601 Systems Thinking and Sustainable Businesses  Credits: 3
Introduces students to the concept of systems thinking so as to allow them to use systems to bring about large scale social change, both within the business community and within our societal infrastructure. Prereq: Admitted bus stdt with Jr or Sr st or envir studies stdt
Typically Offered: Spring

GEN BUS 700 Managerial Communication  Credits: 1 - 2
Focuses on strategic aspects of communication goals for managers and practice in skills needed to carry out writing and speaking objectives. Prereq: Grad st
Typically Offered: Occasionally

GEN BUS 701 Managing Legal Risks  Credits: 3
Legal implications for business managers of selected areas of the law including negligence, contract, intellectual property, officer/director liability, financing the business enterprise, and employment and trade regulation; introduction to the legal process, including alternative dispute resolution systems. Prereq: Grad standing
Typically Offered: Occasionally

GEN BUS 704 Data to Decisions  Credits: 3
Basic analytical and decision making skills for MBA students. Focuses on development and utilization of analytical techniques based on probability, statistics and spreadsheet modeling to formulate and analyze issues central to management decision making in a wide variety of business situations and applications. Prereq: Gen Bus 303 or equiv
Typically Offered: Occasionally

GEN BUS 710 Ethics, Integrity and Society  Credits: 1
This class is designed to prepare students for dealing with ethical challenges in the world outside academia. Focus is on the role of personal values in all types of decision making, from personal to professional. Prereq: 2nd yr MBA degree candidate
Typically Offered: Occasionally

GEN BUS 750 Professional Experience in Business  Credits: 1
Internship which allows students to augment their business education and gain professional experience in their major through related work experience. Prereq: Masters stdt in business & cons inst
Typically Offered: Occasionally

GEN BUS 765 Contemporary Topics  Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally
GEN BUS 775 Introduction to Bayesian Decision and Control I Credits: 3
Common sampling models in business and economic problems, information from data, likelihood function of parameters, choices of models, Bayes' Theorem, subjective basis for probability, sequential nature of Bayesian inference, prior and posterior distributions of parameters in binomial, Poisson, exponential and normal populations, comparison of two normal distributions, predictive distributions, decision theory, utility, risk aversion, extensive form of analysis, two-action problems, point estimation, best population problems, economics of sampling. Prereq: Stat 309, 313, or 311 or equiv
Typically Offered: Occasionally

GEN BUS 781 Financial and Business Acumen Credits: 1
This course is designed with a keen awareness for the needs of the non-financial student or professional. For this class, no previous financial training is required. The intent is to equip you with the essential concepts used to develop financial literacy. Content will cover basic financial terms and reports, analytical tools to help interpret financial data and using financial data in budgets and forecasts. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEN BUS 782 Marketing for Non-Marketing Professionals Credits: 1
An overview of marketing's role within an organization, the key elements of a marketing plan, and how the plan is implemented. Students will learn about buyer demographic, psychographic and purchasing decision behavior. A thorough understanding of the customer enables students to develop a coordinated marketing mix (product, price promotion and place) that will satisfy the customer better than the competition and at the required margin. Students will leave the course understanding the degree to which all company functions must be coordinated and focused on the customer. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEN BUS 783 Leading Teams Credits: 1
Students will gain the knowledge and skills to continuously enhance their own team performance and productivity as well as the teams they are involved with. They will also be in a much better position to lead teams effectively. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEN BUS 784 Project Management Essentials Credits: 1
This project management course teaches techniques that will help you plan, execute, and deliver projects with desired scope on time and on budget. Learn to document clear project objectives and goals, accurately estimate project time and costs, schedule and allocate time-critical resources, and establish feedback systems for optimal project control. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEN BUS 785 Effective Negotiation Strategies Credits: 1
This course aims at improving students' negotiating skills, doing so by providing a theoretical underpinning that will help them to understand the sources of effective and ineffective approaches to negotiations. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEN BUS 799 Reading and Research-Business Research Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and during the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally

GEN BUS 806 Panel Data Analysis Credits: 3
Linear fixed and random effects models; estimation and prediction; data exploration, diagnostics and model selection techniques; generalized linear panel data models. Prereq: Stat 849, Econ 709 or cons inst
Typically Offered: Occasionally
GEN BUS 933 Beginning a Research Career in Business  Credits: 1
This one credit course is required of incoming students in the Wisconsin School of Business PhD program. Students are often overwhelmed and do not absorb material when offered all at once before they begin their regular courses. This format offers fundamental content about conducting research and academic life that is not specific to a given department in the business school, but will help to frame and motivate other studies. This format gives students more time to absorb the content at a point when they can better see how it applies to them. Prereq: Business PhD students only
Typically Offered: Fall

GEN BUS 965 Contemporary Topics  Credits: 1 - 4
Provides in-depth coverage of contemporary topics emphasizing new and emerging issues for PhD students in business or in majors related to business. Students will meet in a seminar format that incorporates discussions, presentations, lectures by the instructor, and relevant invited guest speakers. Prereq: PhD status in specified majors & cons inst
Typically Offered: Occasionally

GEN BUS 975 Ph.D. Communication for Dissertators  Credits: 1
Review of research writing and presentation strategies and practice drafting, editing, and presenting proposal and/or dissertation sections for feedback and revision. Seminar/workshop designed for post-prelim dissertators: focuses on advanced structural and clarity issues, not basic writing/grammar. Prereq: Bus PhDs: dissertation status; non-Bus PhDs: dissertator status & cons inst
Typically Offered: Occasionally

GEN BUS 999 Reading and Research-Business Research PhD  Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally

INFORMATION SYSTEMS

INFO SYS 365 Contemporary Topics  Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisites vary by topic
Typically Offered: Fall, Spring

INFO SYS 371 Technology of Computer-Based Business Systems  Credits: 3
Overview of computers, their attendant technology, and the implications of this technology for large-scale, computer-based information systems. Topics include hardware, system software, program development, files and data communications. Prereq: Comp Sci 302 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INFO SYS 422 Computer-Based Data Management  Credits: 3
Students learn how to analyze information requirements and data flows, design and build effective database systems, manipulate information in a database environment, and build database-driven applications to support management decision making. Focus on data modeling, relational databases, and database technologies. Prereq: Info Sys 371 or consent of instructor
Typically Offered: Fall

INFO SYS 424 Analysis and Design of Computer-Based Systems  Credits: 3
Analysis of business systems to identify possible need for new or improved computer-based systems and the design of systems to meet those needs. Prereq: Info Sys 422 or consent of instructor
Typically Offered: Spring

INFO SYS 671 E-Business: Technologies, Strategies and Applications  Credits: 3
Overview of core concepts of e-commerce and e-business technologies, strategies and applications. Covers business-to-consumer, business-to-business and intra-business models by using real-world examples and cases from various industries. Prereq: Senior or Graduate standing
Typically Offered: Fall
INFO SYS 722 Computer-Based Data Management Credits: 3
Use, control and administration of centralized and distributed data bases. Topics include the definition, design, creation, revision, interrogation, update, security and integrity of data bases. Prereq: Info Sys 371 or cons inst
Typically Offered: Occasionally

INFO SYS 724 Analysis and Design of Computer-Based Systems Credits: 3
Analysis of business systems to identify possible need for new or improved computer-based systems and the design of systems to meet those needs. Prereq: Info Sys 722 or cons inst
Typically Offered: Occasionally

INFO SYS 765 Contemporary Topics Credits: 1 - 3
Exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisites vary by topic
Typically Offered: Occasionally

INTERNATIONAL BUSINESS

INTL BUS 200 International Business Credits: 3
A survey of the interrelationships of world business operations; an introduction to current conceptual perspectives; cultural, educational, political and economic constraints, the international financial and trade frameworks, and the problems and challenges facing the multinational corporation. Prereq: Econ 101 or 102
Typically Offered: Fall, Spring

INTL BUS 313 Professional Communication and Culture in the Francophone World Credits: 3
Study and analysis of the culture and sociology of professional environments in the French and Francophone worlds, including government, international organizations, NGO's and business. Students develop communication skills through interactive teaching methods in multimedia labs. Prereq: French 228 or 311 or consent of instructor
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL BUS 314 Contemporary Issues in Government, Organizations, and Enterprise Credits: 3
Cultural study of contemporary Francophone Africa, focusing on issues in government, organizations and enterprise. Exploration of cultural and professional relations between Francophone Africa and France, the European Union, and the United States. Prereq: French 228 or 311 or 313 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL BUS 315 Advanced Interdisciplinary Studies in Professional Communication Credits: 3
In-depth study, from interdisciplinary perspectives, of key aspects of technical French language for the professions and business, together with an exploration of the history, sociology, and culture of professional environments in the French and Francophone worlds. Prereq: French 228, 313 or 314 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL BUS 320 Intercultural Communication in Business Credits: 3
Develops awareness and knowledge of cultural influences on business. Focuses on various attitudes toward work, time, material possession, business, and the relationship of these attitudes to different social, religious, philosophical, and educational backgrounds of business people from cultures around the world. Prereq: So st
Typically Offered: Fall

INTL BUS 329 Spanish for Business Credits: 3
Spanish lexicon and linguistic style for management, banking, accounting, capital investment, personnel and office systems, production of goods and services, marketing, finance, and import/export; includes translation and interpretive activities. Prereq: Spanish 311 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL BUS 365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisite varies by topic
Typically Offered: Occasionally

INTL BUS 399 Reading and Research-International Business Credits: 1 - 6
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
INTL BUS  403 Global Issues in Management  Credits:  3
This course focuses on the strategic management required in global business. Topics include environmental
analysis, global strategy, and subsidiary control. The aim of the course is to develop special skills that are
required to manage international firms. Prereq: Jr st or Sr st. Not open to grad stdts
Typically Offered: Fall, Spring

INTL BUS  420 Global Marketing Strategy  Credits:  3
Structure of foreign trading; commercial facilities available to exporters and importers; application of economic
analysis in marketing decisions; contemporary trends in international economy affecting foreign trade policies and
practices. Prereq: Sophomore, Junior or Senior standing; Marketing 300
Typically Offered: Fall, Spring

INTL BUS  430 International Real Estate  Credits:  3
Analysis of international real estate and related transaction issues, especially in foreign countries which are
visited as part of the course; survey of land use patterns and regulations, ownership rights, types of leases,
transfer procedures, mortgage system, tax matters, currency risks, and geographical diversification issues.
Prereq: Real Est 306 or cons inst
Typically Offered: Occasionally

INTL BUS  445 Multinational Business Finance  Credits:  3
Application of financial theory to the operations of multinational firms; survey of the international financial
environment; determinants of international portfolio and direct investment capital flows; management of foreign
exchange position and hedging strategies; evaluation of foreign investment projects (multinational capital
budgeting); international financial structure decisions; multinational credit institutions and capital markets; taxation
of international business. Prereq: Finance/Econ 300, Math 213 or 222, & Gen Bus 303 or equiv
Typically Offered: Fall, Spring

INTL BUS  462 Latin American Economic Development  Credits:  3
A historico-institutional analysis of development problems in the principal Latin American countries, with attention
to differentiation of national growth patterns and alternative development strategies. Prereq: Econ 102 or 111
and Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

INTL BUS  730 International Real Estate  Credits:  3
Analysis of international real estate and related transaction issues, especially in foreign countries which are
visited as a part of the course; survey of land use patterns and regulations, ownership rights, types of leases,
transfer procedures, mortgage system, tax matters, currency risks, and geographical diversification issues.
Prereq: Grad st or cons inst
Typically Offered: Occasionally

INTL BUS  745 Multinational Business Finance  Credits:  3
Theory of business finance as applied to the operations of multinational firms; financial analysis and control of
foreign investment decisions; working capital management; multinational credit institutions and capital markets;
special accounting problems and trends in international monetary affairs. Prereq: Finance 700 or equiv
Typically Offered: Occasionally

INTL BUS  755 International Operations: Problems and Administration  Credits:  3
Organizations and strategies of international and multinational firms. Initiating international operations, joint
venture problems, relationships with state enterprises, licensing methods, defenses against adverse government
policies (including confiscation), and international business policies and tactics. Prereq: Grad st
Typically Offered: Occasionally

INTL BUS  765 Contemporary Topics  Credits:  1 - 4
Prereq: Grad st
Typically Offered: Occasionally

INTL BUS  799 Reading and Research-International Business  Credits:  1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the
intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally
M H R  300 Organizational Behavior Credits: 3
Attitudes and behavior within organizations. Satisfaction, performance, and job choice; models of organizational behavior and attitudes; use of the models to demonstrate how individual, group, and organizational characteristics influence attitudes and behavior. Implications for supervisory practice. Prereq: Sophomore standing (not open to Grad students)
Typically Offered: Fall, Spring, Summer

M H R  305 Human Resource Management Credits: 3
Policies and practices; principles and techniques applicable to problems such as employee staffing, training, labor relations, wages, communications, etc. Prereq: Sophomore, Junior, or Senior standing. Not open to grad students
Typically Offered: Fall, Spring, Summer

M H R  310 Challenges & Solutions in Business Sustainability Credits: 3
This course provides students with central knowledge and skills to tackle challenges at the intersection of business and sustainability. Students will study the failures in market and decision making systems that lead to sustainability challenges, and learn how to address these challenges on the policy, organizational, and individual level. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M H R  320 New Ventures in Business, the Arts and Social Entrepreneurship Credits: 3
Students develop capabilities to create new ventures that create value, and critically analyze role of entrepreneurship in society. Activities: Imagine/design new ventures, identify markets and funding sources, develop founding teams, do scholarly research on impact of entrepreneurship. Prereq: Fr, So, Jr, or Sr st. Not open to Grad stdts
Typically Offered: Fall, Spring

M H R  321 Social Entrepreneurship Credits: 1
For the student interested in creating socially-engaged businesses and using entrepreneurial approaches to non-profit ventures. Activities include developing mission statement, assessing social impact, seeking funding from varied sources. Guest lecturers, cases, role playing. Course grounded in management theory. Prereq: Fr, So, Jr, or Sr st. Not open to Grad stdts
Typically Offered: Spring

M H R  322 Introduction to Entrepreneurial Management Credits: 3
Students gain knowledge about foundations of entrepreneurship, and key topics such as founding teams, industry analysis assessing concept, communication, managing people and investors in new ventures. Business development project included. Prereq: Fr, So, Jr or Sr st. Not open to Grad Stdts
Typically Offered: Fall, Spring

M H R  365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: So, Jr or Sr st; cons inst. Not open to grad stdts. Prerequisite varies by topic.
Typically Offered: Occasionally

M H R  399 Reading and Research-Management Credits: 1 - 6
Prereq: Jr or Sr st; cons inst. Not open to grad stdts
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

M H R  401 The Management of Teams Credits: 3
Examines components that comprise teams, highlights key factors that influence team effectiveness, develops skills in diagnosing opportunities and threats that face teams, and enhances teamwork expertise. Prereq: Jr or Sr st; MHR 300. Not open to grad stdts
Typically Offered: Fall, Spring

M H R  403 Global Issues in Management Credits: 3
This course focuses on the strategic management required in global business. Topics include environmental analysis, global strategy, and subsidiary control. The aim of the course is to develop special skills that are required to manage international firms. Prereq: Jr st or Sr st. Not open to grad stdts
Typically Offered: Fall, Spring
MHR 412 Management Consulting  Credits: 3
Offers an understanding of fundamental principles, methods, and tools used in management consulting and
develop skills to diagnose the functioning of an organization, problem solving, and to design and implement
interventions to enhance individual, group, and organizational effectiveness.  Prereq:  So St, MHR 300
Typically Offered:  Spring

MHR 420 Managing Change and Organizational Effectiveness  Credits: 3
How large and complex organizations are structured, and basic managerial processes within organizations.
Topics:  Classical bureaucratic structure contrasted with contemporary organization structure; the impact of
different organizational goals and environments on the structure of organizations; planning, coordination and
control processes as related to different service and production technologies.  Prereq:  So, Jr or Sr st; MHR 300.
Not open to grad stdts
Typically Offered:  Fall, Spring

MHR 422 Entrepreneurial Management  Credits: 3
Addresses entrepreneurship as a career, a phenomenon and as a method of bringing ideas to market.
Appropriate for students interested in starting entrepreneurial ventures, advising managers or working in a small
business.  Including opportunity discovery, business and financial planning.  Prereq:  Gen Bus 310 or Acct IS 300
or (Acct IS 100 & Acct IS 211) or (Acct IS 100 & Finance 300) Jr or Sr st. Not open to grad stdts
Typically Offered:  Fall, Spring

MHR 423 Strategic Management  Credits: 3
Synthesis of material from accounting, economics, finance, operations management, human resources, law,
marketing, and technology to consider problems in corporate and business-level strategy; top management
problems; discussion of actual business cases.  Prereq:  Junior or Senior standing; Acct IS 211; Finance 300;
Marketing 300; MHR 300. Not open to grad students
Typically Offered:  Fall, Spring

MHR 427 Entrepreneurial Growth Strategies  Credits: 3
General management course that analyzes and integrates growth patterns and business disciplines in context of
nascent and high growth firms.  Prereq:  Junior or Senior standing; MHR 422; Acct IS 211. Not open to graduate
students
Typically Offered:  Fall, Spring

MHR 434 Venture Creation  Credits: 3
Intended for students who seek to transform their own ideas into new ventures.  Students will learn the process of
evaluating, formalizing, and communicating a new venture idea.  Student originated product/service/venture
concept required for course.  Prereq:  Sophomore, Junior or Senior standing. Not open to graduate students
Typically Offered:  Fall, Spring

MHR 441 Technology Entrepreneurship  Credits: 3
Designed for undergraduate students interested in learning about the fundamental issues related to starting and
managing technology-based new ventures.  Encourages students to consider how technology-based solutions
can solve economic and socially oriented problems.  Prereq:  So, Jr or Sr st; Not open to Grad stdts
Typically Offered:  Fall, Spring

MHR 470 Seminar: Organizational Issues  Credits: 3
Analysis and discussion of selected issues in organizational strategy, behavior, theory, design, or
entrepreneurship.  Prereq:  Jr or Sr st; MHR 300 & MHR 420 or con reg. Not open to grad stdts
Typically Offered:  Fall, Spring

MHR 471 Seminar: Human Resources Issues  Credits: 3
Analysis and discussion of selected issues in human resource management.  Prereq:  Jr or Sr st; MHR 300 &305. Not open to grad stdts
Typically Offered:  Fall, Spring

MHR 540 Intellectual Property Rights, Innovation and Technology  Credits: 3
Uses economic concepts to illustrate the nature of technological innovation, competition, and economic growth.
Topics:  economics of the intellectual property protection (IPP); market structure and innovation; interaction
between public and private sectors; IPP and anticompetitive policies; globalization.  Prereq:  Econ 301 or equiv
Typically Offered:  Every Other Spring
**MHR 610 Compensation: Theory and Administration** Credits: 3
Determinants of wage levels, wage structures and individual wages; analysis of the impact of wages on individual attitudes and decisions to participate and perform in organizations. Prereq: Jr or Sr st; MHR 305 or 705. Open to grad stdts
Typically Offered: *Fall, Spring*

**MHR 611 Personnel Staffing and Evaluation** Credits: 3
Designed to help students develop an understanding of personnel staffing. This includes staffing strategy, legal compliance, staffing planning, job analysis, external recruitment, internal recruitment, measurement, external selection, internal selection, employment decision-making, and staffing system management. Prereq: Jr or Sr st; Gen Bus 303 or equiv; MHR 305 or 705. Open to grad stdts
Typically Offered: *Fall, Spring*

**MHR 612 Labor-Management Relations** Credits: 3
Labor-management relations at the firm level including its evolution, characteristics and contemporary issues. Emphasis on analysis of the labor-management relationship through reference to theory and research on collective action, bargaining behavior and conflict resolution. Prereq: Jr or Sr st; MHR 305 or 705. Open to grad stdts
Typically Offered: *Fall, Spring*

**MHR 628 Negotiations** Credits: 3
Theory and practice of negotiations. Prereq: Sr st; MHR 300 or 704. Open to grad stdts
Typically Offered: *Fall, Spring*

**MHR 700 Organizational Behavior** Credits: 3
Employee work attitudes and behaviors in organizations. Analysis of how individual, group and organizational characteristics influence employee attitudes, such as satisfaction and alienation, and employee behaviors, such as participation and performance. How managerial policies and practices such as reward systems and leadership influence work attitudes and behaviors. Prereq: Grad st
Typically Offered: *Occasionally*

**MHR 704 Managing Behavior in Organizations** Credits: 3
Examines the effective management of behavior in organizations. Focuses on the application of theories of leadership and work motivation. Includes critical conceptual and analytical assessment of these theories. Emphasizes the management of work performance, managerial skill building, and enabling followers. Prereq: MBA degree stdts or permission
Typically Offered: *Occasionally*

**MHR 705 Human Resource Management** Credits: 3
Two broad substantive areas are covered. (1) Evidence (theoretical and empirical) reviewed on the determinants of employee job attitudes and behavior. For example, the impact of compensation on employee satisfaction and performance. (2) Functional activities of personnel management and their impact on employee behavior evaluated. Sample topics: Selection, development, evaluation and compensation. Prereq: Crse in intro stats
Typically Offered: *Occasionally*

**MHR 706 Leading and Working in Teams** Credits: 2
This course examines team dynamics, highlights key factors that influence team effectiveness, develops skills in diagnosing opportunities and threats that face teams, and enhances teamwork expertise. The content is applicable to projects across specializations. For instance, teamwork skills are essential to projects teams developing new products/services, working on business strategy, implementing process improvements, designing new financial investment instruments, and developing real estate. In any of these projects, employees would work as a team to accomplish their goals. The team's success or failure will depend, to a large extent, on how the team members work together. Prereq: Open t
Typically Offered: *Fall*

**MHR 710 Challenges & Solutions in Business Sustainability** Credits: 3
This course provides students with central knowledge and skills to tackle challenges at the intersection of business and sustainability. Students will study the failures in market and decision making systems that lead to sustainability challenges, and learn how to address these challenges on the policy, organizational, and individual level. Prereq: Graduate or professional standing
Typically Offered: *Spring*
M H R 715 Strategic Management of Innovation Credits: 3
Helps student gain tools, concepts and information about how to generate value from Innovation and technology in existing organizations.  Prereq:  Grad st
tTypically Offered: Occasionally

M H R 722 Entrepreneurial Management Credits: 3
Describes activities and skills necessary to start and manage an enterprise. Includes decisions about domain, purchase versus start-up, preferred market, financing, legal form, staffing, organization structure, location, and legal requirements. Describes the entrepreneurial role in business initiation.  Prereq:  Grad st
Typically Offered: Occasionally

M H R 723 Business Strategy Credits: 3
Integrative approach to strategic management, including strategy formulation/implementation at business unit, corporate levels. Cases, discussion, lecture, simulation are used to communicate concepts. Emphasizes development of unique tools for analysis of companies and industries, application of knowledge to business problems.  Prereq:  Grad st
Typically Offered: Occasionally

M H R 727 Entrepreneurial Growth Strategies Credits: 3
Describes activities and skills necessary to initiate and manage rapid growth in small young firms.  MHR 722, Acct I S 700 & Grad st
Typically Offered: Occasionally

M H R 728 Bargaining, Negotiating and Dispute Settlement for Managers Credits: 3
Designed to improve student knowledge of the bargaining process and their negotiating skills. Students will learn about different bargaining theories and have the opportunity to apply these theories in exercises and role-playing cases.  Prereq:  MBA standing or cons inst
Typically Offered: Occasionally

M H R 729 Behavioral Analysis of Management Decision Making Credits: 3
Examination of behavioral science literature dealing with the processes by which individuals, small groups and organizations make decisions. Understanding decision-making behavior in order to improve managerial performance; modeling decision-making processes for systems design and theory building purposes.  Prereq: Intro course in mgmt processes & intermediate course in stat
Typically Offered: Occasionally

M H R 734 Venture Creation Credits: 3
Intended for students who seek to transform their own ideas into new ventures. Students will learn the process of evaluating, formalizing, and communicating a new venture idea. Student originated product/service/venture concept required for course.  Prereq:  Grad st
tTypically Offered: Occasionally

M H R 737 WAVE Practicum I Credits: 3
Students develop and present comprehensive analyses of local entrepreneurial firms' overall operations and their industry environments. The class meets in a seminar format to discuss assigned readings and student research, and also incorporates presentations by various subject matter experts.  Prereq:  MHR 722, MHR 727 (may be con reg), & cons inst
Typically Offered: Occasionally

M H R 738 Weinert Applied Ventures in Entrepreneurship (WAVE) Credits: 3
Students develop and present comprehensive business and financing plans for a start-up firm. Investment recommendations are made to the WAVE Board. Class meets in a seminar format with various subject matter experts.  Prereq:  MHR 722 or MHR 734
Typically Offered: Occasionally

M H R 741 Technology Entrepreneurship Credits: 3
Designed for graduate students interested in learning about the fundamental issues related to starting and managing technology-based new ventures. Encourages students to consider how technology-based solutions can solve economic and socially oriented problems.  Prereq:  Grad st
Typically Offered: Fall, Spring
MHR 765 Contemporary Topics Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

MHR 773 Seminar-Arts Administration Credits: 3
Examination and applied analysis of selected topics in administration of both visual and performing arts organizations, marketing and audience development, contracts and legal problems, fund development, program planning and evaluation, facilities management, business and government relations. Prereq: Grad st & cons inst
Typically Offered: Occasionally

MHR 774 Seminar-Arts Administration Credits: 3
Continuation of MHR 773. Prereq: Grad st and cons inst
Typically Offered: Occasionally

MHR 783 Leading Teams Credits: 1
Students will gain the knowledge and skills to continuously enhance their own team performance and productivity as well as the teams they are involved with. They will also be in a much better position to lead teams effectively. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

MHR 785 Effective Negotiation Strategies Credits: 1
This course aims at improving students' negotiating skills, doing so by providing a theoretical underpinning that will help them to understand the sources of effective and ineffective approaches to negotiations. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

MHR 790 Master's Research and Thesis Credits: 1 - 6
Completion of master's thesis for MBA program. Prereq: Grad st in Arts Administration MBA progm, or cons inst
Typically Offered: Occasionally

MHR 799 Reading and Research-Management Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally

MHR 835 Research Methods in Management I Credits: 3
(First of a two-course sequence; may be taken as a single course.) Review and critique of published research with focus on the improvement of method. Ethics, theory and research, generating testable theory, reliability, validity, operationalization, measurement and scaling, and surveys. Prereq: MHR 700 & Gen Bus 704 or equiv
Typically Offered: Occasionally

MHR 870 Seminar-Administrative Policy Credits: 3
Application of management processes and decision theory to the analysis of cases and critical incidents in management. Cases and incidents deal with both administrative or corporate strategy and with supervisory tactics. Prereq: MHR 720
Typically Offered: Occasionally

MHR 871 Seminar-Personnel Management Credits: 3
Study and evaluation of merging issues in the field of personnel management. Extensive reading of appropriate literature together with analysis, reports and discussions. Prereq: MHR 610, 611, & 705
Typically Offered: Occasionally

MHR 872 Seminar in Organizational Behavior and Design Credits: 3
Analysis and discussion of selected topics in organizational behavior and design. Prereq: MHR 700 & 730
Typically Offered: Occasionally

MHR 975 Doctoral Research Seminar in Management Credits: 3
Seminar for Ph.D. candidates majoring in management and at or near the doctoral thesis stage. Focus: Assisting the student in working through the conceptualization and design of a thesis topic. Prereq: PhD cand & cons inst
Typically Offered: Occasionally
MHR 976 Doctoral Research Seminar in Management Credits: 2
Continuation of MHR 975. Prereq: PhD cand & cons inst
Typically Offered: Occasionally

MHR 977 Emerging Entrepreneurship Theory and Research Credits: 3
This PhD seminar explores contemporary entrepreneurship theory and research topics; providing students an opportunity to probe and develop scholarly theories of entrepreneurial behavior and outcomes. The course will incorporate presentations by the instructor, students and invited speakers. Prereq: PhD stdt & cons inst
Typically Offered: Occasionally

Individual work to complete dissertation requirement of Ph.D. program. Prereq: Grad st & cons inst
Typically Offered: Occasionally

MHR 999 Reading and Research-Management and Human Resources PhD Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally

MARKETING

MARKETING 300 Marketing Management Credits: 3
Planning and controlling the elements of the marketing program; marketing organization, product and service, packaging, pricing, promotion and physical distribution. Prereq: Sophomore, Junior or Senior standing; Econ 101
Typically Offered: Fall, Spring, Summer

MARKETING 305 Consumer Behavior Credits: 3
Analysis of the theories of consumer behavior and their application to marketing decision-making. Psychological, economic, anthropological and sociological perspectives are integrated to enhance understanding of consumer acquisition processes. Prereq: So, Jr, or Sr st; Marketing 300. Stdts may not receive cr for both Marketing 305 & Cnsr Sci 657
Typically Offered: Fall, Spring, Summer

MARKETING 310 Marketing Research Credits: 3
Systematic and objective search for and analysis of information relevant to the identification and solution of problems in marketing. Prereq: So, Jr, or Sr st; Marketing 300; Gen Bus 303 or equiv
Typically Offered: Fall, Spring, Summer

MARKETING 335 Brand Management & Strategy Credits: 3
To provide an understanding of brands, how they work and to apply brand knowledge to managerial situations. Knowledge of brand history, societies and cultures that surround them, critical mental processes, marketing imperatives, and the economics that underlie them to understand brands. Prereq: Sophomore, Junior or Senior standing; Marketing 300
Typically Offered: Fall

MARKETING 355 Marketing in a Digital Age Credits: 3
This course prepares students with a foundational understanding of digital marketing channels and how successful marketing campaigns use the numerous online and mobile platforms. This course covers the fundamentals of digital marketing including internet marketing strategies, user-generated content, search engine optimization, website design and management, inbound marketing, email marketing, social media campaigns, mobile apps, content strategy and paid search advertising. Prereq: Sophomore standing and MARKETING 300
Typically Offered: Fall, Spring

MARKETING 365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: So, Jr, or Sr st; Marketing 300
Typically Offered: Occasionally

MARKETING 399 Reading and Research-Marketing Credits: 1 - 6
Prereq: So, Jr, or Sr st; Marketing 300
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MARKETNG 415 Marketing Communications Credits: 3
Decision making in the management of communications between the firm and the public. Communications theories, advertising and promotional management. An evaluation of the promotional mix, i.e. personal selling, advertising media, packaging, sales promotion and publicity. Prereq: Sophomore, Junior, or Senior standing; Marketing 300
Typically Offered: Fall, Spring

MARKETNG 420 Global Marketing Strategy Credits: 3
Structure of foreign trading; commercial facilities available to exporters and importers; application of economic analysis in marketing decisions; contemporary trends in international economy affecting foreign trade policies and practices. Prereq: Sophomore, Junior or Senior standing; Marketing 300
Typically Offered: Fall, Spring

MARKETNG 421 Fundamentals of Supply Chain Management Credits: 3
Supply chain management is a cross-functional discipline concerned with the movement of products, services, and information among all links in the value chain. The management of supply chain resources is a way to reduce costs and achieve competitive advantage. Prereq: So, Jr, or Sr st; Marketing 300
Typically Offered: Fall

MARKETNG 422 Logistics Management Credits: 3
Provides a management perspective on the fundamental activities, concepts, and current practices in logistics. Transportation management, order fulfillment, warehousing, global logistics, key performance indicators, outsourcing, and introduction to radio frequency identification and barcoding. Use of case studies and industry speakers. Prereq: OTM 300 or equiv, Marketing 300 or equiv
Typically Offered: Fall

MARKETNG 423 Procurement & Supply Management Credits: 3
Procurement and supply management is the business function concerned with an organization's acquisition of required materials, services, and equipment. The course covers the purchasing function's responsibilities and the necessary knowledge to develop effective sourcing strategies. Prereq: So, Jr, or Sr st; Marketing 300
Typically Offered: Spring

MARKETNG 425 Marketing Channels Credits: 3
The structure and behavior of marketing channels from a managerial frame of reference. Strong emphasis on understanding marketing institutions and agencies and on dissecting behavioral aspects of channel relations--roles of members, use of power, and resolution of conflicts. Prereq: Sophomore, Junior, or Senior standing; Marketing 300
Typically Offered: Fall, Spring

MARKETNG 427 Enterprise Systems and Supply Chain Management Credits: 3
Provides an overview of enterprise systems and supply chain business processes. Introduces students to how enterprise systems are used to manage supply chains and make effective business decisions. Students will use SAP enterprise resource planning software throughout the course. Prereq: Sophomore standing, MARKETING 300 and OTM 300. Not open to graduate students
Typically Offered: Spring

MARKETNG 430 Strategic Pricing Credits: 3
Pricing is one of the most important but least understood of marketing decisions. This course aims to equip you with key concepts and techniques for evaluating and formulating pricing strategies. We will use a combination of analytical and experiential learning methods to accomplish this objective. Prereq: Sophomore standing and MARKETING 300
Typically Offered: Spring

MARKETNG 440 Emerging Issues in New Product Development Credits: 3
The goal of this course is to examine emerging issues in new product development (NPD) such as customer co-creation, R & D alliances, and outsourcing of innovation. Prereq: Sophomore, Junior or Senior standing; Marketing 300
Typically Offered: Fall
MARKETNG 450 Marketing Analytics Credits: 3
In this course we will study the impact of analytics on successful marketing decisions. The course covers a spectrum of topics that include marketing metrics, digital analytics, marketing response models, segmentation, product design, experimentation and big data. It is designed for students with some background in quantitative methods and an exposure to basic marketing research concepts. The course will use a combination of lectures, cases and hands-on model building focused on marketing analytics. Prereq: Sophomore standing, MARKETING 300 and MARKETING 310. Not open to graduate students.
Typically Offered: Spring

MARKETNG 460 Marketing Strategy Credits: 3
Capstone marketing decision-making course emphasizing analysis of the external environment. The coordination of tactical and strategic marketing plans with the goals and objectives of the firm. Prereq: Sr st; Marketing 300.
Prior completion of 2 Marketing crses beyond Marketing 300
Typically Offered: Fall, Spring, Summer

MARKETNG 635 Sales Management Credits: 3
Determination of the amount and allocation of personal sales effort to be applied to the market and methods of organizing, evaluating and controlling this effort. A critical evaluation of current practice in sales planning, analysis and cost control. Prereq: So, Jr, or Sr st; Marketing 300
Typically Offered: Fall, Spring

MARKETNG 640 Retail Management Credits: 3
Management practices in the operation of retail and wholesale enterprises. The basic functions of merchandising, promotion, control and operations. Prereq: So, Jr, or Sr st; Marketing 300
Typically Offered: Fall, Spring

MARKETNG 700 Marketing Management Credits: 3
Provides a framework for evaluating marketing problems and developing a marketing strategy. Customer, company, competitive, and collaborator factors are emphasized as foundations for marketing decision making. The key aspects of product, pricing, distribution, and promotion strategy are also examined. Prereq: Grad standing
Typically Offered: Occasionally

MARKETNG 705 Consumer Behavior Credits: 3
Analysis of theories and models of behavior which underlie the process of consumer decision-making. Marketing applications of psychological, sociological and social-psychological factors. Prereq: Marketing 700 or equiv
Typically Offered: Occasionally

MARKETNG 710 Marketing Research Credits: 3
An overview of the marketing research process from a methodological perspective. Topics: Research design, data collection procedures, sampling and data analysis. Prereq: Marketing 700 or equiv & Gen Bus 303 or equiv
Typically Offered: Occasionally

MARKETNG 715 Marketing Communications Credits: 3
Decision-making in the management of promotions. An evaluation of promotional mix, communications theories, advertising and promotional management and strategy development. Prereq: Marketing 700 or equiv
Typically Offered: Occasionally

MARKETNG 722 Logistics Management Credits: 3
This course provides a foundation in transportation, order fulfillment, warehousing, materials planning including MRP, demand planning, import/export fundamentals, SAP/ERP systems, supply chain metrics, and leading supply chain technologies such as RFID. Prereq: Grad st
Typically Offered: Occasionally

MARKETNG 724 Strategic Global Sourcing Credits: 3
Course focuses on the planning, preparation, negotiation, and implementation activities required for firms to succeed in sourcing globally. It includes essential theoretical, economic, and geopolitical aspects of global sourcing with the steps of a properly developed and executed sourcing strategy. Prereq: Grad st
Typically Offered: Occasionally
MARKETNG 725 Marketing Channels Credits: 3
Marketing channels analyzed as social, economic and political systems. Strong emphasis on understanding and dissecting behavioral dimensions of channel relations--roles of channel members, use of power, conflicts that arise among them, and their communication networks. Prereq: Marketing 700 or equiv
Typically Offered: Occasionally

MARKETNG 726 Seminar in Supply Chain Management Credits: 3
Supply chain management is a cross-functional discipline that involves the integration of business processes among supply chain partners ranging from end users through original suppliers that provide products, services and information that add value for customers. Prereq: Marketing 700 & OIM 750 or cons inst
Typically Offered: Occasionally

MARKETNG 727 Enterprise Systems and Supply Chain Management Credits: 3
Provides an overview of enterprise systems and supply chain business processes. Introduces students to how enterprise systems are used to manage supply chains and make effective business decisions. Students will use SAP enterprise resource planning software throughout the course. Prereq: Grad st
Typically Offered: Spring

MARKETNG 735 Brand Strategy Credits: 3
Provides students a comprehensive and up-to-date treatment of the subjects of brand, brand equity, and strategic brand management. It examines the concepts and techniques to improve the long-term performance of brand strategies. Prereq: Grad st & Marketing 700
Typically Offered: Occasionally

MARKETNG 737 Creating Breakthrough New Products Credits: 3
In this course, students will implement a Stage-Gate approach to generate and evaluate new product ideas. Throughout the semester students will use both qualitative and quantitative research techniques to develop and test product concepts, create prototypes, and assess market viability. Prereq: MARKETING 700
Typically Offered: Occasionally

MARKETNG 740 Emerging Issues in New Product Development Credits: 3
The goal of this course is to examine emerging issues in new product development (NPD) such as customer co-creation, R & D alliances, and outsourcing of information. Prereq: Marketing 700
Typically Offered: Occasionally

MARKETNG 755 Marketing in a Digital Age Credits: 3
This course prepares students with a foundational understanding of digital marketing channels and how successful marketing campaigns use the numerous online and mobile platforms. This course covers the fundamentals of digital marketing including internet marketing strategies, user-generated content, search engine optimization, website design and management, inbound marketing, email marketing, social media campaigns, mobile apps, content strategy and paid search advertising. Prereq: MARKETING 700
Typically Offered: Fall, Spring

MARKETNG 765 Contemporary Topics Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

MARKETNG 782 Marketing for Non-Marketing Professionals Credits: 1
An overview of marketing's role within an organization, the key elements of a marketing plan, and how the plan is implemented. Students will learn about buyer demographic, psychographic and purchasing decision behavior. A thorough understanding of the customer enables students to develop a coordinated marketing mix (product, price promotion and place) that will satisfy the customer better than the competition and at the required margin. Students will leave the course understanding the degree to which all company functions must be coordinated and focused on the customer. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

MARKETNG 799 Reading and Research-Marketing Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally
MARKETNG 805 Qualitatively-Based Marketing Insights Credits: 3
Understanding and application of in-depth qualitative market research methods, with an emphasis on the interpretation of qualitative data. Provides hands-on experience with different methodological techniques and immersion in a cultural perspective for systematically analyzing data from a marketing perspective. Prereq: Marketing 700 & 710
Typically Offered: Occasionally

MARKETNG 815 Marketing Analytics Credits: 3
In this course we will study the impact of analytics on successful marketing decisions. The course covers a spectrum of topics that include Marketing Metrics, Digital Analytics, Marketing Response Models, Segmentation, Product Design, Experimentation and Big Data. It is particularly useful to students planning careers in marketing analytics, product management and consulting. It is designed for students with some background in quantitative methods and an exposure to basic marketing research concepts. Prereq: GEN BUS 700 and MARKETING 710
Typically Offered: Occasionally

MARKETNG 971 Seminar-Marketing PhD Credits: 3
Analysis and discussion of recent research in all aspects of marketing thought and practice. Prereq: Grad st
Typically Offered: Occasionally

MARKETNG 972 Seminar-Marketing PhD Credits: 3
Continuation of Marketing 971. Prereq: PhD cand & cons inst
Typically Offered: Occasionally

Individual work to complete dissertation requirement of Ph.D. program. Prereq: Grad st & cons inst
Typically Offered: Occasionally

MARKETNG 999 Reading and Research-Marketing PhD Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally

OPERATIONS & TECHNOLOGY MGMT

OTM 300 Operations Management Credits: 3
Managing operations is about people, information, equipment, and materials and how these are combined to produce and/or deliver goods and services to customers. Emphasis is on how systems and processes can be designed, managed, and improved to achieve operations excellence and competitive advantage. Prereq: Sophomore standing
Typically Offered: Fall, Spring, Summer

OTM 351 Principles and Techniques of Quality Management Credits: 3
This course introduces students to the terminology, concepts, principles, and techniques for managing and improving quality. Prereq: Gen Bus 303 or equiv, MHR 300 or equiv
Typically Offered: Occasionally

OTM 365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisite varies by topic
Typically Offered: Fall, Spring

OTM 370 Sustainable Approaches to System Improvement Credits: 3
Organizations employ a variety of improvement approaches to develop sustainable practices. This course examines innovative system-improvement concepts and methodology that directly address sustainability concerns such as natural capital, emission buildup, and base of the pyramid, while simultaneously strengthening mission-central concerns such as cost, quality, customer, market, revenue, profit, brand, reputation sourcing, and quality of work life. Prereq: None
Typically Offered: Fall

OTM 399 Reading and Research-Operations and Information Management Credits: 1 - 6
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
OTM 410 Operations Research I Credits: 3
Linear and nonlinear programming with emphasis on applications; the transportation problem, parametric
programming, sensitivity analysis, dynamic programming. Prereq: Math 211 or equivalent
Typically Offered: Fall

OTM 411 Operations Research II Credits: 3
Stochastic processes; Markov processes, queuing theory; applications to production and inventory problems.
Prereq: Gen Bus 303 or equivalent, Math 211 or equivalent
Typically Offered: Spring

OTM 421 Fundamentals of Supply Chain Management Credits: 3
Supply chain management is a cross-functional discipline concerned with the movement of products, services,
and information among all links in the value chain. The management of supply chain resources is a way to reduce
costs and achieve competitive advantage. Prereq: So, Jr, or Sr st; Marketing 300
Typically Offered: Fall

OTM 422 Logistics Management Credits: 3
Provides a management perspective on the fundamental activities, concepts, and current practices in logistics.
Transportation management, order fulfillment, warehousing, global logistics, key performance indicators,
outsourcing, and introduction to radio frequency identification and barcoding. Use of case studies and industry
speakers. Prereq: OTM 300 or equiv, Marketing 300 or equiv
Typically Offered: Fall

OTM 442 Database Management and Applications Credits: 3
Introduces students to the concepts of database analysis, design, implementation, and management. Main topics
include conceptual and relational database modeling and design; relational database processing and Structured
Query Language (SQL); Microsoft Access. A real-world team project that uses the concepts and technologies
taught in the course is an important element. Prereq: Sophomore standing
Typically Offered: Fall, Spring

OTM 444 Economics of Transportation Credits: 3
Influence of transport costs on economic development, industrial location and market penetration; economic
characteristics of carriers; pricing policies and practices in transport; interrelationship of public policy issues and
decisions by suppliers and users of transportation. Prereq: Econ 101
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

OTM 451 Service Operations Management Credits: 3
Application of operations management principles to the analysis of service-delivery systems in profit and nonprofit
organizations. Topics include designing service-delivery systems, location and layout, operations planning and
control, yield management, technology and information systems, and service quality management. Prereq: OTM
300
Typically Offered: Fall

OTM 578 Facilities Location Models Credits: 3
The theory and methods of facility location. Plant and warehouse siting, plant layout problems and location of
service facilities such as hospitals and fire stations. Cases of actual applications. Prereq: OIM 410 or Ind Engr
323, or equivalent
Typically Offered: Spring

OTM 620 Simulation Modeling and Analysis Credits: 3
Introduction to simulation modeling and analysis techniques with application to production, logistics, service, and
other systems. Emphasis on model building, application of basic statistical data analysis, and the use of
simulation for design, evaluation, and improvement of such systems. Introduction to available software. Case
studies. Prereq: Comp Sci 302 or equiv & Stat 312 or equiv
Typically Offered: Spring

OTM 632 Introduction to Stochastic Processes Credits: 3
Markov chains: classification, recurrence, transience, limit theory. Renewal theory, Markov processes, birth-
death processes. Applications to queueing, branching, and other models in science, engineering and business.
Topics drawn from semi-Markov processes, martingales, Brownian motion. Prereq: Math 431, or Stat 309 &
310, or Stat 311 & 312, or Stat 313 or 314
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
OTM 633 Queuing Theory and Stochastic Modeling  Credits: 3  
Reliability theory; coherent systems and reliability bounds. Markovian queues and Jackson networks. Steady-
state behavior of general service time queues. Priority queues. Approximation methods and algorithms for 
complex queues. Simulation. Dynamic programming; applications to inventory and queueing.  Prereq:  Math, Ind 
Engr 632 or cons inst  
L&S Breadth:  Natural Science   L&S Level:  Advanced   L&S Credit:  Counts for LAS credit   Typically Offered:  Occasionally

OTM 640 Business Logistics Analysis  Credits: 3  
Emphasis on the business logistics process from a managerial perspective; analysis of logistics systems to 
develop implementation strategies for effective flow of material and information throughout the supply chain.  
Prereq:  Econ 101  
Typically Offered:  Fall

OTM 654 Production Planning and Control  Credits: 3  
The role of materials and capacity planning and control in business operations. Manufacturing Resource Planning 
Systems: aggregate planning, material requirements planning, capacity planning, operations scheduling.  
Procedures for cellular manufacturing systems. Costing issues in modern planning and control systems.  Prereq: 
OTM 300  
Typically Offered:  Spring

OTM 671 E-Business: Technologies, Strategies and Applications  Credits: 3  
Overview of core concepts of e-commerce and e-business technologies, strategies and applications. Covers 
business-to-consumer, business-to-business and intra-business models by using real-world examples and cases 
from various industries.  Prereq:  Senior or Graduate standing  
Typically Offered:  Fall

OTM 700 Operations Management  Credits: 3  
Management of the operations function in manufacturing and service organizations. Emphasizes the coordination 
of resources to improve cost, quality, and customer service. Topics include materials, capacity, and project 
management, operations strategy, forecasting, and process design.  Prereq:  Gen Bus 303 or equiv  
Typically Offered:  Occasionally

OTM 705 Data Analysis and Decision Making  Credits: 3  
Students will advance their analytical and decision making skills by developing practical spreadsheet models to 
evaluate business situations. Fundamental topics in probability, statistics, and constrained optimization will be 
troduced and used as modeling tools via active learning exercises.  Prereq:  Graduate or professional standing  
Typically Offered:  Occasionally

OTM 710 Operations Research I  Credits: 3  
Linear and nonlinear programming with emphasis on applications; the transportation problem, parametric 
programming, sensitivity analysis, dynamic programming.  Prereq:  OIM 709 or Math 222 or cons inst  
Typically Offered:  Occasionally

OTM 711 Operations Research II  Credits: 3  
Stochastic processes: Markov processes; queuing theory; applications to production and inventory problems.  
Prereq:  Gen Bus 303 & either OIM 709 or Math 222 or cons inst  
Typically Offered:  Occasionally

OTM 722 Logistics Management  Credits: 3  
This course provides a foundation in transportation, order fulfillment, warehousing, materials planning including 
MRP, demand planning, import/export fundamentals, SAP/ERP systems, supply chain metrics, and leading 
supply chain technologies such as RFID.  Prereq:  Grad st  
Typically Offered:  Occasionally

OTM 732 Economics for Managers  Credits: 3  
This course develops and applies economic principles to examine the affect of firm, industry, domestic and global 
market conditions on both day-to-day managerial decision making and long-term strategic planning.  Prereq:  1st 
yr MBA stdt  
Typically Offered:  Occasionally
OTM 744 Economics of Transportation Credits: 3
Influence of transport costs on economic development, industrial location and market penetration; economic characteristics of carriers; pricing policies and practices in transport; interrelationship of public policy issues and decisions by suppliers and users of transportation. Prereq: Econ 101
Typically Offered: Occasionally

OTM 751 Service Operations Management Credits: 3
Application of operations management principles to the analysis of service-delivery systems in profit and nonprofit organizations. Topics include designing service-delivery systems, location and layout, operations planning and control, yield management, technology and information systems, and service quality management. Prereq: OIM 750 or equiv
Typically Offered: Occasionally

OTM 753 Healthcare Operations Management Credits: 3
Healthcare delivery systems around the world struggle with three fundamental issues: patient access to care, quality and safety in the care process (incl. patient and staff satisfaction), and cost of care. In this course, we look at these issues and selected analysis and improvement approaches that the discipline of Operations Management can offer. In doing that, different types of both clinical and non-clinical processes in hospital settings are illustrated. Prereq: Graduate standing
Typically Offered: Spring

OTM 755 International Operations: Problems and Administration Credits: 3
Organizations and strategies of international and multinational firms. Initiating international operations, joint venture problems, relationships with state enterprises, licensing methods, defenses against adverse government policies (including confiscation), and international business policies and tactics. Prereq: Grad st
Typically Offered: Occasionally

OTM 758 Managing Technological and Organizational Change Credits: 3
Issues surrounding strategic decisions to adopt new technologies and modern improvement philosophies, the impact these will have on the organization and its members, obstacles preventing successful implementations, and the effective management of change processes. Change triggered by process technologies, and models of change management, form the core of the course. Prereq: OIM 700 or cons inst. Stdts may not take both OIM 758 & IE 658 for cr
Typically Offered: Occasionally

OTM 765 Contemporary Topics Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

OTM 770 Sustainable Approaches to System Improvement Credits: 4
Innovative system-improvement concepts and approaches that sustainably strengthen mission-central concerns such as quality, cost, customers, markets, revenue, profit, brand, reputation, sourcing, quality of work life, natural capital, buildup of concentrations and base of the pyramid. Prereq: One semester course in statistics
Typically Offered: Occasionally

OTM 784 Project Management Essentials Credits: 1
This project management course teaches techniques that will help you plan, execute, and deliver projects with desired scope on time and on budget. Learn to document clear project objectives and goals, accurately estimate project time and costs, schedule and allocate time-critical resources, and establish feedback systems for optimal project control. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

OTM 799 Reading and Research-Operations and Information Management Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally

OTM 860 Sustainable Design of Innovative Products, Services and Systems Credits: 3
Principles, concepts and methodology for innovative, sustainable approaches to design of products, services and systems. Prereq: None
Typically Offered: Occasionally
OTM 861 Strategic Systems and Sustainability Credits: 3
Innovative concepts and methodology that embed sustainability into strategic organizational systems. Prereq: OIM 770 or equiv or consent of instructor
Typically Offered: Occasionally

OTM 875 Seminar in Operations and Technology Management Credits: 3
Current topics in operations and technology management. Prereq: OIM 700 or equiv
Typically Offered: Occasionally

Individual work to complete dissertation requirement of Ph.D. program. Prereq: Grad st & cons inst
Typically Offered: Occasionally

OTM 999 Reading and Research-Operations and Information Management PhD Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally

REAL ESTATE & URBAN LAND ECON

REAL EST 306 The Real Estate Process Credits: 3
Introductory survey course. Decision-making processes for the manufacture, marketing, management and financing of real estate. Survey of institutional context, economics of urbanization, historical pattern and structure of city growth, and public policy issues regarding urban environment and business management. Prereq: So, Jr, or Sr st; Econ 101
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

REAL EST 312 Real Estate Law Credits: 3
The basic principles of real estate law related to ownership rights, negotiations, brokering, transfers, condominium law, financing, income tax law, real estate property taxation, bankruptcy law, construction and development contracts, and residential and commercial leases, including both office and retail leases, and an overview of international legal systems. Prereq: Real Est 306 or consent of instructor
Typically Offered: Fall, Spring, Summer

REAL EST 365 Contemporary Topics Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum. Prereq: Prerequisite varies by topic
Typically Offered: Occasionally

REAL EST 399 Reading and Research-Urban Land Economics Credits: 1 - 6
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

REAL EST 410 Real Estate Finance Credits: 3
Fundamentals of real estate finance; sources of funds, alternative financing instruments, and mortgage securitization; analysis emphasizing cash flow projections, yield and risk for residential and commercial real estate; pricing of mortgage securities. Prereq: Real Est 306 or consent of instructor
Typically Offered: Fall, Spring, Summer

REAL EST 415 Valuation of Real Estate Credits: 3
Techniques of real estate valuation. Market analysis, legal and political analysis, and highest and best use analysis; in-depth exposure to the three approaches to valuation: market comparison, income, and cost; the role of valuation in real estate investment; government regulation of appraisers. Prereq: Real Est 306 or cons inst
Typically Offered: Fall, Spring, Summer

REAL EST 420 Urban and Regional Economics Credits: 3
Nature and structure of urban economies; location of economic activity; economic analysis in an urban framework; principles of urban economic development, housing, transportation, poverty and unemployment and municipal finance. Forecasting of economic activity using census and socioeconomic data. Prereq: Econ 101
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
REAL EST 430 International Real Estate Credits: 3
Analysis of international real estate and related transaction issues, especially in foreign countries which are visited as part of the course; survey of land use patterns and regulations, ownership rights, types of leases, transfer procedures, mortgage system, tax matters, currency risks, and geographical diversification issues. Prereq: Real Est 306 or cons inst
Typically Offered: Occasionally

REAL EST 520 Community Economic Analysis Credits: 3
Economic theory (location and growth) applicable to community economic development; the role of private and public sector in local economic development, and techniques for economic analysis of community. Prereq: Econ 301 or equiv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

REAL EST 611 Residential Property Development Credits: 3
A capstone course. In-depth exposure to the world of the residential builder/developer/subdivider and the necessary tools of analysis--market analysis, zoning/environmental and other entitlements, site planning and design, infrastructure/construction cost analysis, financing, feasibility analysis, deal structuring, renovation/rehabilitation, special needs housing. Prereq: Real Est 410 & 415 or con reg or cons inst
Typically Offered: Fall, Spring, Summer

REAL EST 631 Computer Applications in Real Estate Analysis Credits: 3
Computer methods for real estate investment/feasibility analysis, evaluation of mortgage design and mortgage pricing models; computer analysis of option models in real estate, use of sales comparison adjustment grid methods; implementation of capital asset pricing and portfolio models in real estate. Prereq: Real Est 410 or 710 & 415 or 715 or con reg or cons inst
Typically Offered: Spring

REAL EST 641 Housing Economics and Policy Credits: 3
The economic principles underlying the dynamics of the housing market; filtering, neighborhood decline and abandonment gentrification, tenure choice, mortgage choice, prepayment, mobility, mortgage default, submarket identification, racial discrimination and segregation. Examination of governmental programs affecting the housing market and their objectives and impacts; public and subsidized housing, zoning and land use regulation, rent and price controls, property and income tax policy. Prereq: Real Est 420 or con reg or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

REAL EST 651 Green - Sustainable Development Credits: 3
Intended for students who have an interest in Green and Sustainable aspects of housing and commercial property development and operation, the re-use and/or rehabilitation of existing structures, redevelopment of historic buildings into housing or commercial space and related special topics such as financing sources, tax issues, financial structuring, legal issues and energy cost management.
Typically Offered: Spring

REAL EST 661 Real Estate Investment Analysis and Presentation Credits: 3
This course provides a real world capstone experience of the real estate investment process from project conception to asset disposition with particular focus on analysis and presentation. Students will be exposed to best known methods and practices that private equity and development firms use to conduct market research, project selection, financial feasibility, regulatory review, design considerations, construction management, debt financing, equity placements, equity waterfalls, property management, asset management and disposition. The course uses several learning methods, including lectures with significant student participation, weekly online quizzes to ensure learning of quantitative
Typically Offered: Fall, Spring

REAL EST 706 The Real Estate Process Credits: 3
Institutional background of real property; economics of urbanization, supply and demand; building industry, real estate credit, cyclical fluctuation, rents and prices, real estate market analysis; city growth, structure and planning, land use control, urban redevelopment and real estate investment analysis. Prereq: Grad st & Econ 301 or equiv or cons inst
Typically Offered: Occasionally
REAL EST 710 Real Estate Finance  Credits: 3
Evaluating the role of financing and leverage in real estate investment analysis; identifying alternative types of financing; valuation of financial structure; sources of equity financing for real estate; mortgage securitization and the operation of secondary mortgage markets. Prereq: Grad st or cons inst
Typically Offered: Occasionally

REAL EST 712 Real Estate Law  Credits: 3
Advanced principles of real estate law related to ownership rights, negotiations, brokering, transfers, condominium law, financing, income tax law, real estate property taxation, bankruptcy law, construction and development contracts, and residential and commercial leases, and an overview of international legal systems. Prereq: Grad st
Typically Offered: Occasionally

REAL EST 715 Techniques of Real Estate Valuation  Credits: 3
Topics include highest and best use and most probable use analysis, statistical methods for developing adjustment factors and comparable selection for the market comparison approach, discounted cash flow analysis and income capitalization, and cost approach methods. Issues in appraisal ethics and federal requirements for appraisal practice. Prereq: Grad st only or cons inst
Typically Offered: Occasionally

REAL EST 720 Urban Economics  Credits: 3
Analysis of spatial relationships in the urban economy, including urban land, labor and housing markets; urban transport; city governance and finance; and regional models. Historical and applied focus. Interdisciplinary approach emphasizing economics, geography, and planning. Prereq: Econ 301 or equiv or cons inst
Typically Offered: Occasionally

REAL EST 730 International Real Estate  Credits: 3
Analysis of international real estate and related transaction issues, especially in foreign countries which are visited as a part of the course; survey of land use patterns and regulations, ownership rights, types of leases, transfer procedures, mortgage system, tax matters, currency risks, and geographical diversification issues. Prereq: Grad st or cons inst
Typically Offered: Occasionally

REAL EST 740 Real Estate Equity Investment  Credits: 3
Fitting investment strategy to context of physical property, leverage, form of ownership, income tax and management alternatives. Emphasis is on analysis of limited partnerships, trusts, corporate real estate enterprises, and securitization to fund real estate. Prereq: Real Est 710
Typically Offered: Occasionally

REAL EST 750 Commercial Property Development  Credits: 3
A capstone course. Creating industrial real estate, office space, shopping centers, and hotel/recreation facilities, including strategy, market and feasibility analysis, site planning/design, capital cost analysis, construction and financial structuring. Emphasis on case studies and project analysis. Prereq: Real Est 710, 715 or con reg
Typically Offered: Occasionally

REAL EST 765 Contemporary Topics  Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

REAL EST 770 Commercial Real Estate Finance  Credits: 3
This is a capstone course focused on advanced topics in commercial real estate finance. The course is broken into three parts: 1) Financial Derivatives, 2) Risk Management, and 3) Structured Finance. Lectures will address relevant topic areas and develop methodological skills. Industry professionals will appear later in the course to provide real world markets perspective. Assignments and case studies will be used to reinforce learning of material presented in class. Prereq: Real Est 710 or cons inst
Typically Offered: Spring

REAL EST 799 Reading and Research-Urban Land Economics  Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally
REAL EST  870 Advanced Real Estate Finance Theory  Credits: 3
Theory of real estate financial markets as applied to the pricing of residential and commercial mortgages.
Intensive analysis of the real estate securitization process. A critical examination of REITs and equity interests in
commercial real estate.  Prereq:  Real Est 710 or cons inst
Typically Offered: Occasionally

REAL EST  875 Advanced Urban Land Economics  Credits: 3
A capstone course. Advanced analysis of selected topics in urban land economics, including urban form and
location, government regulation of land use and real estate markets.  Prereq:  Real Est 720 or cons inst
Typically Offered: Occasionally

REAL EST  977 Seminar-Urban Land Economics PhD  Credits: 2
Philosophic basis of research thinking and technique; case applications to the problems of urban land economics.
Prereq:  Two sems of Grad work. PhD or 2nd yr masters candidates
Typically Offered: Occasionally

REAL EST  978 Seminar-Urban Land Economics PhD  Credits: 2
Continuation of Urb R Pl/Real Est 977.  Prereq:  Two sems of Grad work. PhD or 2nd yr masters candidates
Typically Offered: Occasionally

REAL EST  990 Real Estate Independent Research PhD Thesis  Credits: 1 - 12
Individual work to complete dissertation requirement of Ph.D. program.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally

REAL EST  999 Reading and Research-Real Estate PhD  Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during
the intersession periods.  Prereq:  PhD st & cons inst
Typically Offered: Occasionally

RISK MANAGEMENT AND INSURANCE

RMI  300 Principles of Risk Management  Credits: 3
Precedes advanced work in insurance; the nature of risk, principal techniques of risk management and the bases
for decision making in management of business and personal risks.  Prereq:  Econ 101or equiv or Econ 111 (not
open to Grad stdts)
L&S Breadth: Social Science   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

RMI  365 Contemporary Topics  Credits: 1 - 3
A course for the exploration of subject areas possibly to be introduced into the business curriculum.  Prereq:
Prerequisite varies by topic
Typically Offered: Spring

RMI  399 Reading and Research-Risk Management  Credits: 1 - 6
Prereq:  Cons inst
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring, Summer

RMI  610 Property Risk Management  Credits: 3
Comprehensive analysis of loss control and transfer techniques (including insurance), risk management concepts,
loss adjustment and underwriting problems, and profitability/regulatory issues concerning the insurance industry.
Current topics: large-scale catastrophies (hurricanes and earthquakes), solvency, insurance coverages for
property exposures, and loss control.  Prereq:  RMI 300 or Real Est 306
Typically Offered: Fall

RMI  615 Liability Risk Management  Credits: 3
Comprehensive analysis of economic services, benefits, rates and rating theory, loss adjustment problems, legal
theory factors, risk management concepts, loss prevention and transfer techniques and government regulation of
public liability insurance. Topics include: medical malpractice, no-fault auto insurance, professional liability,
workers' compensation, products liability and pollution liability.  Prereq:  RMI 300
Typically Offered: Spring
R M I 620 Employee Benefits Management Credits: 3
Nongovernmental schemes for treating the risks of superannuation of members of a group; property, liability, legal expense, life and health coverages available to groups; organizational characteristics, benefit structure and pricing of risk transfer schemes for groups; characteristics and funding of various types of pension plans; effects of ERISA. Prereq: RMI 300 or MHR 305
Typically Offered: Spring

R M I 630 Life and Health Insurance Credits: 3
Determination of human life values and the conservation of those values through personal and business life and health insurance; a consumerist orientation that develops a scheme for rational buying behavior; analysis of contractual provisions; introduction to mathematics of life contingencies and pricing. Prereq: RMI 300 or consent of instructor
Typically Offered: Fall

R M I 640 Management of Insurance Enterprise Credits: 3
Functional analysis of the operations of insurance organizations; legal organization, marketing systems, management and control, underwriting, rating, financial analysis, rate making and regulation. Prereq: RMI 300
Typically Offered: Fall

R M I 645 Commercial Insurance Credits: 3
This course is designed to consider the structure, use, benefits, and limitations of corporate insurance products. Fundamental to the material is the economic underpinning of the insurance contract structure. The major commercial property and liability insurance products will be analyzed in detail with the purpose of illustrating these economic principles and applying them to specific organizational situations. Prereq: RMI 300
Typically Offered: Every Other Spring

R M I 650 Sustainability, Environmental and Social Risk Management Credits: 3
The assessment, control, financing and management of risks deriving from pressures on and damages to the environment, workers and local/foreign communities. Risks include liability and directors and officers law suits, boycotts, regulations and competitors' actions. Prereq: Jr st
Typically Offered: Spring

R M I 655 Risk Financing Techniques Credits: 3
Study of advanced risk management tools and markets for financing loss costs. Topics include: insurance, self-insurance, retrospective premium plans, risk retention and purchasing groups, reinsurance, insurance subsidiaries (captives), and other policyholder-owned facilities. Prereq: R M I 300/700 or equivalent
Typically Offered: Spring

R M I 660 Risk Analytics and Behavioral Science Credits: 3
This course aims to enhance students' ability to navigate uncertainty. The course provides an overview about what we know about the challenges people face in situations with risk and uncertainty. We will use that knowledge to help students identify decision-making biases and to build a framework students can use for thinking clearly about decisions in uncertain environments. We will introduce techniques for improving our understanding of risk and uncertainty and the potential consequences of our choices. Finally, throughout the course we will practice working through making inferences and decisions in the face of ambiguity. Prereq: RMI 300/700 and GEN BUS 306 or GEN BUS 704
Typically Offered: Fall, Spring

R M I 700 Principles of Risk Management Credits: 3
Background for advanced work in insurance. Nature of risk, principal techniques of risk management, and the bases for decision making in management of business and personal risks. Prereq: Grad St & Econ 101 or 103
Typically Offered: Occasionally

R M I 701 Managing Legal Risks Credits: 3
Legal implications for business managers of selected areas of the law including negligence, contract, intellectual property, officer/director liability, financing the business enterprise, and employment and trade regulation; introduction to the legal process, including alternative dispute resolution systems. Prereq: Grad standing
Typically Offered: Occasionally
R M I 710 Risk Management Credits: 2
The purpose of risk management is to minimize the adverse consequences of variability. Topics include the general philosophy of risk management, environmental factors affecting risk, options to manage risk, and decision processes to select among those options. Prereq: Grad st
Typically Offered: Occasionally

R M I 765 Contemporary Topics Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

R M I 799 Reading and Research-Risk Management Credits: 1 - 6
Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods. Prereq: Grad st & cons inst
Typically Offered: Occasionally

R M I 815 Risk Financing Techniques Credits: 3
Study of advanced risk management tools and markets for financing loss costs. Topics include insurance, self-insurance, retrospective premium plans, risk retention and purchasing groups, reinsurance, insurance subsidiaries (captives), and other policyholder owned facilities. Prereq: RMI 700 or equiv
Typically Offered: Occasionally

R M I 820 Advanced Topics in Risk Management Credits: 3
Examination of data collection and analysis methods for risk management decisions. Analysis of qualitative and quantitative data to support transfer, retention, and loss control decisions, including loss trending, and evaluation of regulatory controls. Prereq: RMI 700 or equiv
Typically Offered: Occasionally

R M I 875 Seminar-Risk Management and Insurance Credits: 3
Continuation of RMI 870. Prereq: Two crses in actuarial sci, risk & insurance
Typically Offered: Occasionally

R M I 920 Seminar in Actuarial Science, Risk Management & Insurance I Credits: 3
Doctoral seminar in actuarial science, risk management and insurance with emphasis on developing an appreciation of existing literature and appropriate skills to conduct own scholarly work in the field. Prereq: Cons inst
Typically Offered: Occasionally

R M I 930 Seminar in Actuarial Science, Risk Management & Insurance II Credits: 3
Doctoral seminar in actuarial science, risk management and insurance, with emphasis on developing an appreciation of existing literature and appropriate skills to conduct own scholarly work in the field. Prereq: Cons inst
Typically Offered: Occasionally

Individual work to complete dissertation requirement of Ph.D. program. Prereq: Grad st & cons inst
Typically Offered: Occasionally

R M I 999 Reading and Research-Risk Management and Insurance PhD Credits: 1 - 6
Individual work suited to the needs of Ph.D. students may be arranged both during the regular sessions and during the intersession periods. Prereq: PhD st & cons inst
Typically Offered: Occasionally
SCHOOL OF EDUCATION

ART DEPARTMENT

ART 100 Introduction to Art Credits: 3
Explores elements of visual language through lecture and art studio work, focusing on the development and application of both critical thinking and hands-on creative skills. Prereq: Open to Certificate in Art students and non-art majors. Not open to Art or Art Ed majors.
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART 102 Two-Dimensional Design Credits: 3
Two-dimensional composition and introduction to color theory through lectures, audiovisual materials, and studio assignments. Prereq: Open to Freshmen
Typically Offered: Fall, Spring

ART 104 Three-Dimensional Design Credits: 3
Applying design principles to 3-D investigations. Lectures, studio exercises, discussions. Prereq: None
Typically Offered: Fall, Spring, Summer

ART 107 Introduction to Digital Forms Credits: 3
An introduction to a range of digital media techniques for artists and designers, including digital imaging, vector graphics, web design and 3D digital modeling. Emphasis on creative development along with technical skill building. Prereq: None
Typically Offered: Fall, Spring, Summer

ART 108 Foundations of Contemporary Art Credits: 3
Artists' formal, technical and expressive concerns; the principal ideas of movements which have significantly influenced the major tendencies in contemporary art. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART 112 Drawing I Credits: 3
To develop perceptions, use of perspective, line, light and dark, development of space, and expressive qualities in drawing. Prereq: Open to Freshmen
Typically Offered: Fall, Spring, Summer

ART 176 Digital Photography for Non-Art Majors Credits: 4
Introduction to tools, techniques and concepts of digital photography, with an emphasis on the workflow beginning with composition and image capture, to digital manipulation and enhancement, to the end goal of print or online publication. Students will develop a robust fundamental skill set in digital photography through lectures, readings, discussions, practical instruction, instructor review and group critiques. Prereq: None
Typically Offered: Fall, Spring, Summer

ART 208 Current Directions in Art Credits: 3
Examination of current artists' motivations, intentions, and processes and their relationship to general developments in contemporary art. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART 212 Drawing II Credits: 3
Further investigation of all media through drawing experience, class criticism, and lectures. Prereq: Art 112.
Open to Freshmen
Typically Offered: Fall, Spring, Summer
ART 214 Sculpture I Credits: 4
Introduction to techniques and basic sculpture concepts to provide a survey of sculpture studio practices. Prereq: Prerequisites include prior completion of Art 104, and completion of or concurrent enrollment in one of the following: Art 100, 108 or 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 222 Introduction to Painting Credits: 3 - 4
Introduction to various technical processes and aspects of painting. Studio practice, lectures, discussions, and critiques. Prereq: Prior completion of Art 112 & 212; and completion of or concurrent enrollment in Art 100, 108 or 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 224 Ceramics I Credits: 4
Properties of clay and fundamentals of forming; hand-building, throwing, slip-casting, press molding; with emphasis on individual form concepts. Glazing, decorating, firing techniques including reduction, oxidation and primitive methods. Prereq: Prerequisites include prior completion of Art 104; and prior completion or concurrent enrollment in Art 100, 108 or 208
Typically Offered: Fall, Spring, Summer

ART 226 Textile Design: Off-Loom Construction Credits: 3
Studio design problems in two and three dimensional off-loom constructions; off-loom weaving, looping, and knotting; historical reference and contemporary application. Prereq: DS 120 and DS 153
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART 229 Textile Design: Weaving I Credits: 3
Development of individual design solutions within basic weave structures. Historical and technical influence on contemporary woven design. Prereq: DS 120 and DS 251
Typically Offered: Fall

ART 232 Life Drawing I Credits: 4
Anatomical structure and intrinsic forms involved in drawing from different models. Development of technical control in a range of media. Prereq: Prerequisites include prior completion of Art 212; prior or concurrent enrollment in Art 100, 108 or 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 236 Bascom Course Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Freshmen.
General Education: COM B  Typically Offered: Occasionally

ART 242 Watercolor I Credits: 3 - 4
Painting with watercolor and mixed media on paper. Experimental and traditional uses of the media will be explored, emphasizing drawing, composition, and imagination. Field trips. Prereq: Prior completion of Art 112 & 212; prior or concurrent enrollment in Art 100, 108 or 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 244 Art Metal I Credits: 3 - 4
Basic jewelry techniques; metal fabrication dealing with piercing, soldering, forming. Prereq: Art 104 and one of the following Art 100, 108 or 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 256 Introduction to Typography Credits: 4
Typography is a gateway into visual communication. It's a visual realization of the most basic element of communication -- the word. In this course, students will gain an understanding of the basic of principles of typography: the selection and arrangement of type for effective legibility, and develop effective arrangements of text, information, and visuals with typographic elements. Prereq: Art 107, Art 108, Art 208
Typically Offered: Fall, Spring, Summer
ART 302 Color Credits: 4
Color phenomena and visual perception as applied in art problems. Lectures, readings in theory, philosophy, and history of design. Prereq: Art 112 & either Art 102 or DS 120; or consent of instructor
Typically Offered: Fall, Spring

ART 306 Relief Printmaking Credits: 3 - 4
Woodcut, collage print, linoleum cut, and wood engraving; color printing. Studio practice, lectures, discussion, critiques. Prereq: Art 212 and one of the following Art 100, 108 or 208; or Art Grad status; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 309 Digital Art and Code Credits: 4
An introduction to the principles of computer coding in a visual context. Course emphasizes the production of graphical and interactive output delivered on a screen. Prereq: ART 107 or declared in the graduate program in Art
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART 312 Intermediate Drawing I Credits: 3 - 4
The exploration of conceptual drawing in various media. Emphasis on conceptual/formal solutions. Prereq: Art 102, 104, 212, & completion of or concurrent registration in Art 108 & 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 314 Sculpture II Credits: 4
Continuation of Art 214. Prereq: Art 214 or Art grad standing; or consent of instructor
Typically Offered: Fall, Spring

ART 316 Lithography Credits: 4
Direct drawing on stone with crayon and tusche, transfer techniques, color processes; studio practice, lectures, discussions, and critiques. Prereq: Art 212 and one of the following: Art 100, 108 or 208; or Art Grad Status; or consent of instructor
Typically Offered: Fall, Spring

ART 318 Introduction to Video, Performance & Installation Art Credits: 4
An introduction to time-based art forms including video, installation, and visual art performance. Prereq: Art 107 and one of the following: Art 100, 108 or 208; or Art Grad status; or consent of instructor
Typically Offered: Fall, Spring

ART 322 Intermediate Painting I Credits: 4
Development of technical processes, concepts, historical continuity. Study and application of various media of oils, acrylics, collage materials. Prereq: Art 102, 104, 212, 222, & completion of or concurrent registration in Art 108 & 208; or consent of instruction
Typically Offered: Fall, Spring, Summer

ART 324 Ceramics II Credits: 4
Continuation of 224. Prereq: Art 102, 104, 212, 224, & completion of or concurrent registration in Art 108 & 208; or art grad standing; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 326 Etching Credits: 4
Introduction to intaglio printmaking techniques. Studio problems in platemaking and printing. Prereq: Art 102, 104, 212, & completion of or concurrent registration in Art 108 & 208; or consent of instruction
Typically Offered: Fall, Spring, Summer

ART 328 The Computer in the Visual Arts Credits: 4
Survey of the use of the computer in art: history, artists' work, techniques, and the practical generation of computer-assisted imagery. Cons inst. Prereq: Art 102, 104, 212, 208, & completion of or con reg in Art 108; or cons inst
Typically Offered: Fall, Spring

ART 332 Life Drawing II Credits: 4
Continuation of Art 232. Prereq: Art 232
Typically Offered: Fall, Spring, Summer
ART 334 Wood Working Credits: 3 - 4
Exploration of wood as a medium for constructing creative and functional three-dimensional forms. Prereq: Art 102, 104, 112, 212, & completion of or concurrent registration in Art 108 & 208; or consent of instructor
Typically Offered: Fall, Spring

ART 336 Serigraphy Credits: 3 - 4
Materials and techniques of silk screen process; silk screen as a fine art form. Prereq: Art 102, 104, 212, & completion of or con reg in Art 108 & 208; or cons inst
Typically Offered: Fall, Spring, Summer

ART 338 Service Learning in Art Credits: 2
Students discuss community-based practices in the field, and will work with a community partner in an art-related capacity. Prereq: None
Typically Offered: Fall, Spring

ART 341 Sound Design for the Performing and Visual Arts Credits: 3
Production of audio soundtracks to complement the work of artists. The relationship of sound and music to dance, video, film, computer art, and other interdisciplinary forms. Prereq: Art, Dance or Com Arts major or consent of instructor
L&S Breadth: Humanities   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

ART 342 Watercolor II Credits: 4
Continuation of 242. Prereq: Art 102, 104, 212, 242 & completion of or concurrent registration in Art 108 & 208; or art grad standing; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 343 Metal Fabrication and Welding in Sculpture Credits: 3 - 4
Reviews common welding and metal fabrication techniques available to artists, including various welding processes, brazing techniques, torch work, cutting devices, bending methods, and finishing techniques. Mild steel will be the primary material of exploration. Prereq: Art 214 or Art 244; or art grad status; or cons inst
Typically Offered: Occasionally

ART 344 Art Metal II Credits: 4
Advanced jewelry techniques: exploration of centrifugal lost wax casting, forging, stone setting, and hollow construction. Prereq: Art 104, 212 & 244; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 346 Basic Graphic Design Credits: 4
Introduces students to the basic principles of graphic design. Students will develop an initial understanding of formal, conceptual, and technical aspects of the field. Emphasis will be given to the importance of working process, presentation and craftsmanship. Prereq: ART 107
Typically Offered: Fall, Spring

ART 348 Introduction to Digital Printmaking Credits: 4
Provides students with fundamental skills in combining hand printed and digital output. Hybrid print integrates laser plate, monoprint, collograph, stencil, stamping, and embossment with inkjet output. Focuses on enhancement of digital output through integration of hand printed elements. Prereq: Art 102 or 107, Art 104, 108, 112, 208 and 212. Art Grad status, or cons inst
Typically Offered: Fall, Spring

ART 354 Glassworking Credits: 4
Glassworking toward a personal concept of material; lecture and lab. Prereq: Art 102, 104, 212, & completion of or con reg in Art 108 & 208; or cons inst
Typically Offered: Fall, Spring

ART 356 Intermediate Typography Credits: 4
This course will examine the design and organization of printed word and letterforms in combination with other graphic elements. Exploration of experimental typographic forms, interpretive design, and text and image relationships will be emphasized. Prereq: Art 107, Art 108, Art 208, Art 246, and Art 256. This course can be taken concurrently with Art 346
Typically Offered: Fall, Spring, Summer
ART 366 Stage Lighting I Credits: 3 - 4
Application of lighting design to the stage and natural environment. Color principles, lighting instruments, and control equipment. Production participation and labs. Prereq: So st
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART 372 Set Design I Credits: 3
Principles of composition, scale, perspective, and color applied to the stage; production of ground plans, elevations, sketches, and models. Prereq:
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ART 376 Photography Credits: 3 - 4
Techniques, philosophies, and concepts in photography as an art form. Emphasis on personal expression and relationship to other media. Prereq: Art 102, 104, 212, & completion of or concurrent registration in Art 108 & 208; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 393 Internships in Art Credits: 1
This online course allows students who have found outside art-related internships to earn academic credit in connection with their work experience. Prereq: None
Typically Offered: Fall, Spring, Summer

ART 409 Digital Fabrication Studio Credits: 4
Introduction to the practice and application of digital fabrication technologies in an artistic context with an emphasis on extending and integrating with traditional material approaches to art production. Includes theoretical readings devoted to the implications of digital and machine technologies on art practice. Prereq: Art graduate student or ART 104 and ART 107 and either ART 108 or ART 208
Typically Offered: Spring, Summer

ART 412 Intermediate Drawing II Credits: 4
Continuation of Art 312. Prereq: Art 312; or Art grad standing; or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 414 Art Foundry Credits: 3
Traditional and nontraditional methods of fine art foundry. Prereq: Art 314 and cons inst
Typically Offered: Summer

ART 422 Intermediate Painting II Credits: 4
Continuation of 322. Prereq: Art 322 or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 428 Digital Imaging Studio Credits: 4
Explore current and historical practices in the digital fine arts while refining conceptual and technical understanding of digital art forms as powerful tools for generating and communicating images and ideas. Students will create and manipulate both static and moving imagery, with implications for digital drawing, painting, printmaking, video editing/post-production, and narrative or non-narrative 2D animation in a fine art context. Prereq: Art 107 and concurrent enrollment or prior completion of one of the following Art courses: 100, 108 or 208; or Art Grad status; or instructor consent.
Typically Offered: Fall, Spring

ART 429 3D Digital Studio I Credits: 4
Introduction to three-dimensional modeling in the computer, in particular the use of 3D digital models for the creation of images and objects. Prereq: Art 102, 104, 108, 208 & 212; or art grad st; or cons inst
Typically Offered: Occasionally

ART 438 Cultural Context of Graphic Design and Typography Credits: 4
This course will examine the major developments and changes in graphic design and typography as the fields emerged and defined themselves during the last one hundred years. Prereq: Art 107, Art 108, Art 208, Art 346 and instructor consent
Typically Offered: Spring
ART 441 Advanced Sound Design Credits: 3
Advanced instruction in the production of sound tracks to complement the work of artists in dance, video, film, computer art and other interdisciplinatory forms. Prereq: Dance/Art 341
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART 446 Artists' Books Credits: 4
The multiple and sequential visual imagery of the non-printed book, including its design and creation. Prereq: One of the following: Art 306, 316, 326, 336, 346 or 376, or Art grad st, or cons inst
Typically Offered: Fall, Spring

ART 448 Special Topics Credits: 1 - 4
Prereq: Varies according to topic
Typically Offered: Fall, Spring, Summer

ART 452 Intermediate Painting: New Figuration I Credits: 4
The human figure as a source for creative and independent viewpoints in painting and other media. Students work together in the painting studio from a live model and from other figural sources. Prereq: Art 232 & 322; or art grad st; or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART 454 Neon: Light as Sculpture Credits: 4
Introduction to light as sculptural medium including techniques for creating art using luminous tubes. Prereq: Art 354 or cons inst
Typically Offered: Fall, Spring

ART 456 Illustration Credits: 3
Practice of illustration for commercial printing. Prereq: Art 232, 312, and one of the following: 222, 306, 316, 326, 336, and cons inst
Typically Offered: Not Applicable

ART 458 Graphic Design for Branding and Identity Credits: 4
This is an advanced graphic design course with an emphasis on corporate brand identity development. Topics can include mark development, product packaging, marketing and advertising collateral, web branding, and broadcast advertising development. Special attention is given the application of semiotics and other forms of basic communication theory to the design process. Prereq: Art 107, Art 108, Art 208, Art 346, and instructor consent
Typically Offered: Fall, Spring

ART 463 Information Graphics Credits: 4
This course examines the theory and practice of visual representation of information. Students will learn to create effective and illuminating graphical displays of data based on four basic formulations -- location, time, category, hierarchy, and index. Prereq: Art 107, Art 108, Art 208, Art 346
Typically Offered: Fall, Spring

ART 465 Graphic Design for Packaging Credits: 4
This course defines the role of packaging in product identification, presentation, and production. The unique challenges of adapting typography, illustration, design and materials to three-dimensional forms are explored. Research includes marketing objectives, structural integrity and display aesthetics. Prereq: Art 107, Art 108, Art 208, Art 346 and instructor consent
Typically Offered: Spring

ART 466 Papermaking: History, Elements and Techniques Credits: 4
Investigation and explanation of papermaking by hand as it relates to printmaking, drawing, and sculpture. History of papermaking stressing the last hundred years. Techniques of the craft, traditional sheet forming and use of paper pulp as pure plastic material with same educational goals as metal, ceramics, and wood. Prereq: Art 102, 104, 112, 212 & completion of or con reg in Art 108 & 208; or cons inst
Typically Offered: Occasionally
ART 467 Graphic Design for Posters Credits: 4
This course examines the design of posters as a mode of communication. Students will learn to create effective combinations of words and images that mobilize principles of composition, perception, and rhetoric. Projects will encourage students to further explore graphic design as a means of communication, artistic expression, and information organization. Prereq: ART 107, ART 108, ART 208
Typically Offered: Fall, Spring

ART 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART 470 Special Topics in 4D Art Credits: 3 - 4
Topics courses exploring historical, theoretical and studio components surrounding time-based art forms including digital animation, video, installation, and visual art performance. Prereq: Art 318 Introduction to Video, Performance and Installation Art; Graduate status; or consent of instructor
Typically Offered: Fall, Spring

ART 476 Intermediate Photography Credits: 4
Introduction to more advanced printing techniques, large format camera, critical analysis, and discussion of history of photography and current trends. Prereq: Art 208 & 376; or cons inst
Typically Offered: Fall, Spring

ART 506 Advanced Relief Printmaking Credits: 4
Emphasis on color problems, surface qualities; studio practice, discussion, critiques. Prereq: Art 208 & 306; or cons inst
Typically Offered: Fall, Spring, Summer

ART 508 Colloquium in Art Credits: 1
Typically Offered: Fall, Spring

ART 511 Art Performance Credits: 3 - 4
An exploration of art genres that often incorporate a form of time-based performance, including but not limited to elements found in theater, dance, music, spoken word/poetry, etc. Prereq: Art 208 and at least one of the following: Art 318, 418, 518; or Grad st; or cons inst
Typically Offered: Occasionally

ART 512 Advanced Drawing I Credits: 4
Drawing course taught in a structured format where students work on various problems/issues in drawing.
Prereq: Art 412; or Art grad st; or cons inst
Typically Offered: Fall, Spring, Summer

ART 514 Advanced Sculpture Workshop 1 Credits: 4
Instruction in the use of various materials as required by the individual in terms of the formal and conceptual basis of the work. Emphasis on independent research and development of studio projects. Prereq: ART 314 or declared in an Art graduate program.
Typically Offered: Fall, Spring, Summer

ART 516 Advanced Lithography Credits: 2 - 3
(See Art 316). Prereq: Art 316 and cons inst
Typically Offered: Fall, Spring

ART 518 Artist's Video Credits: 4
Principles and techniques in video art. Prereq: Art 208 & 318; or cons inst
Typically Offered: Fall, Spring

ART 521 Installations and Environments Credits: 4
Studio projects in site-specific art making supplemented by readings and examples of relevant contemporary artists' work. Prereq: Art 208 and either Art 214 or Art 318; or art grad status; or consent of instructor
Typically Offered: Fall, Spring
**ART 522 Advanced Painting I** Credits: 4  
Technical processes; emphasis on personal expression, concepts, in various approaches to painting. Prereq: Art 422 or 452; or cons inst  
Typically Offered: *Fall, Spring, Summer*

**ART 524 Advanced Ceramics I** Credits: 4  
Thrown and hand-built forms, clay bodies, glazes, firing, general studio procedure; emphasis on development of personal concepts. Prereq: Art 208 & 324; or consent of instructor  
Typically Offered: *Fall, Spring, Summer*

**ART 526 Advanced Etching/Intaglio** Credits: 4  
Research in advanced intaglio techniques. Color printing. Prereq: Art 208 & 326; or cons inst  
Typically Offered: *Fall, Spring, Summer*

**ART 528 Digital Interactive Studio** Credits: 4  
Concepts and techniques of digital interactive art with an emphasis on physical interaction. Prereq: Art 104 and Art 428  
Typically Offered: *Fall, Spring*

**ART 529 3D Digital Studio II** Credits: 4  
Intermediate/advanced class covering the theory and practice of 3D digital modeling and animation software as a tool for making art. Prereq: Art 429 or cons inst  
Typically Offered: *Occasionally*

**ART 531 Screen Performance** Credits: 3 - 4  
Focuses on performance made for the screen including first person narrative, spoken word, video dance, fictional cinema, experimental documentary and other forms of mediated performance practice. Prereq: None  
Typically Offered: *Spring*

**ART 532 Advanced Life Drawing I** Credits: 4  
Further examination of the percepts of drawing with the human figure. Emphasis on formal elements. Problems of structure. Intense studio practice working from the model. Prereq: Art 332; Art grad st; or cons inst  
Typically Offered: *Fall, Spring, Summer*

**ART 534 Advanced Wood Working** Credits: 4  
Prereq: Art 334 or consent of instructor  
Typically Offered: *Fall, Spring, Summer*

**ART 536 Advanced Serigraphy** Credits: 4  
(See Art 336). Prereq: Art 208 & 336; or cons inst  
Typically Offered: *Fall, Spring, Summer*

**ART 542 Advanced Watercolor I** Credits: 4  
Transparent and opaque watercolor media; studio practice, critiques, field trips. Prereq: Art 208 & 342; or art grad st; or cons inst  
Typically Offered: *Fall, Spring, Summer*

**ART 544 Advanced Art Metal I** Credits: 4  
Prereq: Art 208 & 344; or cons inst  
Typically Offered: *Fall, Spring, Summer*

**ART 546 Graphic Design for Publications** Credits: 4  
This course will cover the theory and practice of designing newspapers, magazines, books, and other narrative forms. Emphasis will be placed on advanced typographic theory, and advanced digital and manual production skills. Prereq: Art 107, Art 108, Art 208, Art 346, and instructor consent  
Typically Offered: *Fall, Spring*

**ART 548 Special Topics: Advanced Level** Credits: 1 - 4  
Special Topic in Art - Advanced Level. Prereq: Will vary according to topic. See notes  
Typically Offered: *Fall, Spring, Summer*
ART 552 Advanced Painting: New Figuration II Credits: 4
Continuation of Art 452. Prereq: Art 452; or art grad st; or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART 554 Advanced Glassworking Credits: 4
Continuation of 354. Prereq: Art 208 & 354; or cons inst
Typically Offered: Fall, Spring, Summer

ART 556 Graphic Design for Interactive Media Credits: 4
This course applies graphic design theory and process to interactive media, including web documents and other forms of electronic publishing. Topics covered include visual design; the fundamentals of website structure and navigation; web typography; accessibility and usability; and writing HTML and CSS. Projects examine the web as a platform for both client-driven and self-published work. Prereq: Art 107, Art 108, Art 208, Art 346
Typically Offered: Fall, Spring

ART 560 Graphic Design Senior Thesis Project and Exhibition Credits: 4
This course functions as a capstone experience for seniors in the Graphic Design Program. A hybrid of studio and seminar, course work will combine inquiry, research, creative problem-solving, and design prototyping. Students will use research to launch a comprehensive graphic design thesis project which will be exhibited at the end of the term. Prereq: (ART 107, ART 346 and ART 438) and (two of ART 458, ART 463, ART 465, ART 467, ART 546, ART 556, ART 565, or ART 568)
Typically Offered: Spring

ART 565 Typeface Design Credits: 4
This course will examine conceptual and technical processes used for designing fonts and typefaces in a digital environment. Prereq: Art 107, Art 108, Art 208, Art 346 and instructor consent
Typically Offered: Spring

ART 568 Motion Typography Credits: 4
This course will examine conceptual and technical processes used setting type in motion in a digital environment using digital video, computer graphic, and digital photo technologies. Students must take ART 107 and ART 346 prior to enrolling in this course. Prereq: Consent of instructor
Typically Offered: Spring

ART 570 Advanced Topics in 4D Art Credits: 3 - 4
Topics courses exploring advanced concepts in historical, theoretical and studio practices in the discipline of time-based art forms, including but not limited to: digital animation, video, installation, and visual art performance. Prereq: Prerequisites include prior completion of Art 470; or graduate status; or consent of instructor
Typically Offered: Fall, Spring

ART 572 Set Design II Credits: 3
Historical survey of visual theatre, painting, and architectural styles adapted to various dramatic forms. Application of design elements and styles to contemporary theatre productions. Prereq: Theatre 372 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART 576 Advanced Photography Credits: 4
Emphasis on advanced techniques, color, personal concepts and expression, criticism, communicative potential of photography. Prereq: Art 476 or cons inst
Typically Offered: Fall, Spring, Summer

ART 608 Interdisciplinary Critique in the Visual Arts Credits: 3
Group critique for advanced students working in the various disciplines of the visual arts. Prereq: Grad or Sr st and cons inst
Typically Offered: Occasionally

ART 612 Advanced Drawing II Credits: 3 - 4
A continuation of 512 (Advanced Drawing I). Prereq: Art 512; or Art grad st; or cons inst
Typically Offered: Fall, Spring, Summer
ART 614 Advanced Sculpture Workshop 2 Credits: 3 - 4
Continuing instruction in the use of various materials as required by each student in terms of the formal and conceptual basis of their work. Emphasis on the development of individually directed studio projects, professional art practices, and preparing work for exhibition. Prereq: ART 514 or declared in an Art graduate program
Typically Offered: Fall, Spring, Summer

ART 618 Advanced Artists’ Video Credits: 4
Advanced course in the production of contemporary video art, emphasizing editing skills and the use of special effects, as well as critical analysis and theoretical issues. Prereq: Art 518 or cons inst
Typically Offered: Fall, Spring, Summer

ART 622 Advanced Undergraduate Painting Workshop Credits: 3
Continuation of 522. Prereq: Art 222 & two of the following: Art 322, 422, 452, 522, 552 or 652; & cons inst through competitive portfolio review
Typically Offered: Fall, Spring

ART 624 Advanced Ceramics II Credits: 4
Continuation of 524. Prereq: Art 524 or consent of instructor
Typically Offered: Fall, Spring, Summer

ART 629 3D Digital Studio III Credits: 4
An advanced project based class in 3D Digital Animation. Students will complete a single major animation project based on their own proposal as approved by the instructor. Prereq: Art 529 or cons instr
Typically Offered: Fall, Spring

ART 632 Advanced Life Drawing II Credits: 3 - 4
Continuation of 532. Prereq: Art 532; pr Art grad st; or cons inst
Typically Offered: Fall, Spring, Summer

ART 636 Computer Augmented Printmaking Credits: 4
Advanced computer imaging for printmaking. Emphasis is on self-initiated projects that combine printmaking or photographic techniques with digital output. Prereq: Art 356 & one of the following: Art 306, 316, 326, 328, 336, or 376; or cons inst
Typically Offered: Fall

ART 642 Advanced Watercolor II Credits: 4
Continuation of 542. Prereq: Art 542; or art grad st; or cons inst
Typically Offered: Fall, Spring, Summer

ART 644 Advanced Art Metal II Credits: 4
Prereq: Art 544 or cons inst
Typically Offered: Fall, Spring, Summer

ART 646 Art of the Printed Book Credits: 4
Introduction to the art of the printed book using traditional and state of the art printing processes in a studio format. Prereq: Art 346 and either Art 356 or 446; or cons inst
Typically Offered: Occasionally

ART 652 Advanced Painting: New Figuration III Credits: 4
Continuation of Art 552. Prereq: Art 552; or art grad st; or cons inst
Typically Offered: Fall, Spring

ART 656 Design Portfolio and Professional Practice Credits: 4
Advanced level graphic course designed to prepare senior level students for entrance into the design profession. Portfolio and resume preparation will be the primary emphasis. Legal and professional practice topics also will be addressed. Prereq: (ART 107, ART 346 and ART 438) and (two of ART 458, ART 463, ART 465, ART 467, ART 546, ART 556, ART 565, or ART 568)
Typically Offered: Occasionally
ART 660 Art and Technology Credits: 4
An advanced seminar/studio class dealing with theoretical and aesthetic issues relating to the use of technology in contemporary art practice. Readings, and lectures will prepare students for weekly discussions. Each student will complete one research project and one studio project. Prereq: One of the following: Art 420, Art 428, Art 429, Art 458, Art 518, Art 528, Art 529, Art 636, or cons inst
Typically Offered: Fall, Spring

ART 674 Selected Topics on Afro-American Artists Credits: 3
Works of Black artists in the U.S. discussed historically in terms of movements which they created and in terms of trends evolving on an international scale. Jr st and cons inst. Prereq: Jr st and cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART 699 Independent Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ART 700 Introduction to Graduate Studies in Art Credits: 3
Introduction to graduate study in art. Will explore the relationships between the contemporary art world, research and studio practice, theoretical issues, and education in the arts. Also addresses building and sustaining a career in the arts. Prereq: First Year Art Grad st
Typically Offered: Fall

ART 722 Graduate Painting I Credits: 2 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 726 Graduate Intaglio Printmaking I Credits: 2 - 3
Refinement of advanced intaglio methods; exploration toward and individual and mature imagery in graphics materials. Prereq: Art 526 and cons inst
Typically Offered: Occasionally

ART 736 Graduate Graphics Workshop I Credits: 2 - 6
Open to experienced graphics students; all graphics media available; emphasis on development of personal concepts; individual conferences. Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 826 Graduate Intaglio Printmaking II Credits: 2 - 3
Continuation of 726. Prereq: Art 726 and cons inst
Typically Offered: Occasionally

ART 836 Graduate Graphics Workshop II Credits: 2 - 6
Continuation of 736. Prereq: Art 736 and cons inst
Typically Offered: Occasionally

ART 908 Seminar-Art Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring, Summer

ART 912 Advanced Research-Drawing Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 914 Advanced Research-Sculpture Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 922 Advanced Research-Painting Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally
ART 924 Advanced Research-Ceramics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 942 Advanced Research-Watercolor Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 944 Advanced Research-Art Metal Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 996 Advanced Research-Graphics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART 999 Independent Study Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART EDUCATION (DEPT OF ART)

ART ED 322 Information Design for Visual Learning Credits: 3
Building a foundation in art, design, and visual culture, students will develop information design skills enabling them to create visual presentation tools using a wide variety of digital software and hardware as well as traditional media for instruction and learning. Prereq: None
Typically Offered: Fall, Spring

ART ED 323 Art in Elementary Education Credits: 3
Basic principles and problems in teaching art; basis for an understanding and evaluation of children's art work. Prereq: Jr st & adm to Elem or Art TC Prog, or Educ Spec, or cons inst. May not be taken con with Curric/ Art Ed 324
Typically Offered: Fall

ART ED 324 Art in Secondary Education Credits: 3
Methods and philosophies of teaching art; problems in implementing theories in practical situations in junior and senior high schools. Prereq: Jr st & cons inst
Typically Offered: Fall

ART ED 326 Design Education Credits: 3
Study and application of information, environment, object, and experience design to K-12 art education. Typically Offered: Spring, Summer

ART ED 423 Student Teaching in Art in Elementary Schools Credits: 2 - 6
Prereq: Art Ed, Curric 323
Typically Offered: Occasionally

ART ED 424 Student Teaching in Art in Secondary Schools Credits: 2 - 6
Prereq: Art Ed, Curric 324
Typically Offered: Occasionally

ART ED 470 Practicum in Elementary School Art Credits: 3
Selection of appropriate instructional materials and their application to a practical problem in teaching to selected students. Prereq: Jr st & cons inst
Typically Offered: Fall

ART ED 493 Practicum in Secondary School Art Credits: 3
Observation and instruction of elementary and secondary pupils in a laboratory setting. Lecture and discussion of topics related to art instruction. Prereq: Art Ed 323 & 470
Typically Offered: Fall
ART ED 557 Learning Through Design Credits: 3
Study of design fields (information design, environmental design, and experience design) in order to identify, examine, and research how designers create objects that enhance experiences with respect to learning, work, and leisure. Prereq: Typically Offered: Fall, Summer

ART ED 570 Art in Exceptional Education Credits: 3
Approaches to developing programs and teaching art to exceptional students in public schools, special schools, and community institutions. Prereq: Jr st & 3 cr in studio art, or cons inst Typically Offered: Spring

ART ED 699 Independent Reading and Research Credits: 1 - 3
Prereq: Second sem Sr and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ART ED 900 Contemporary Practices in Art Education Credits: 3
Prereq: Graduate or professional standing Typically Offered: Occasionally

ART ED 951 Seminar in Art Education Credits: 3
Examination and analysis of ideas and studies in art education and related areas preparatory to formulating research problems. Prereq: Grad st & cons inst Typically Offered: Occasionally

ART ED 999 Advanced Independent Reading Credits: 1 - 3
Prereq: Grad st and cons inst Typically Offered: Occasionally

COUNCILING PSYCHOLOGY

COUN PSY 105 Human Resources Develop: Awareness Processes-Cnsl&Guid Perspective Credits: 1
Didactic and experiential learning and exploration to provide basic understanding of inter- and intrapersonal relations. Topics include values clarification, information acquisition, skill acquisition, human relations, self-understanding, self-development, and self-evaluation. May be repeated. See Timetable for section emphasis. Prereq: Cons inst. Open to Fr Typically Offered: Fall, Spring

COUN PSY 110 Human Resources Development: Career Strategies Credits: 1
Exploration and vocational development through didactic and experiential learning. Career education concerns the place and value of work in the individual's life span and style--development and assessment of self, an understanding of the world of work, and facilitation of decision-making, planning, and preparation. May be repeated. See Timetable for section emphasis. Prereq: Cons inst. Open to Fr Typically Offered: Fall, Spring

COUN PSY 115 Human Resources Development: Educational Effectiveness Credits: 1
Exploration of personal, institutional, and community resources that optimize academic success and persistence. Utilizes didactic and experiential methods to develop higher level learning, skill, and understanding. May be repeated. See Timetable for section emphasis. Prereq: Cons inst. Open to Fr Typically Offered: Fall, Spring, Summer

COUN PSY 125 A Wisconsin Experience Seminar Credits: 1
Examine transition to UW Madison through exploration of the research university and the Wisconsin Experience. A variety of texts, including a novel and textbook will provide a context for discussion, writing, and experiential assignments. Twelve students per section, supportive environment. Prereq: Open to Fr or transfers only L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COUN PSY 225 Coming to Terms with Cultural Diversity: Invitation to Dialogue Credits: 3
This course is designed as an introduction to social issues raised by global and national trends toward heightened contact among persons from diverse social and cultural groups. It will fulfill the ethnic studies requirement for University of Wisconsin undergraduates. Prereq: Open to Fr Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
COUN PSY 230 Race and the Developing Child Credits: 3
The purpose of this course is to understand children's psychological experience of racial, ethnic and cultural (REC) status, development of their understandings of REC, and implications of this development for discussing, dialoguing, and working with REC diversity with an emphasis on educational contexts. Prereq: None
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COUN PSY 300 Special Topics: Counseling and Counseling Psychology Credits: 1 - 4
This course examines various special topics in Counseling and Counseling Psychology. Prereq: None
Typically Offered: Fall, Spring, Summer

COUN PSY 325 Seminar: Students Seeking Educational Equity and Diversity (SEED) Credits: 3 - 4
Students use personal experiences, readings, and discussions as frameworks for interrogating social, cultural, and political inequities. Students engage in dialogues and experiential activities about social differences to promote critical consciousness and intercultural competence across disciplines. Prereq: So st
Typically Offered: Fall, Spring

COUN PSY 350 Peer Leadership and Mentorship with Transitioning Students Credits: 1
Examines student development in the first college year and strategies upper class students can utilize to be effective leaders and mentors of new students. Course textbook provides foundation for discussion, writing, and experimental assignments. Prereq > Open to sophomores and above
Typically Offered: Fall, Spring

COUN PSY 525 Dimensions of Latin@ Mental Health Services Credits: 3
This service-learning course provides training for students who aspire to one of the helping, health, or mental health professions and who currently work or who envision themselves working with Latin@ populations. The course provides important frameworks for working with Latin@s, including cultural, spiritual, linguistic and historical features relevant to this population and begin to apply their knowledge in service learning placements. Prereq: Junior standing or 6 credits of CHICLA
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COUN PSY 620 Special Topics in Counseling and Guidance Credits: 1 - 6
Instruction and/or practice in specialized counseling approaches, strategies, and techniques; working with various populations of clients served by counselors. Prereq: Jr st
Typically Offered: Fall, Spring, Summer

COUN PSY 650 Theory and Practice in Interviewing Credits: 3
Theoretical bases for conducting interviews; types of interviewing; introduction to counseling and interviewing techniques. Limited opportunity to practice. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COUN PSY 665 Career Development Throughout the Life Span Credits: 3
For educators and students preparing for teaching, counseling, and administrative positions. Relationships among education, work and life style as well as factors influencing individual career development; rationale for career education and application of Wisconsin and other state models; strategies for development and evaluation of career education/ career guidance programs and activities. Prereq: Jr st
Typically Offered: Fall, Summer

COUN PSY 699 Independent Reading Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COUN PSY 719 Introduction to Qualitative Research Credits: 3
Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prereq: Grad st
Typically Offered: Occasionally
COUN PSY 723 Developmental Processes Across the Life Span  Credits: 3  
Life-span perspective on studying individual development from conception to death. Emphasis on multidisciplinary, multidirectional, and contextual approaches to physical, psychological, social, and intellectual developmental processes. Prereq:  Grad st  
Typically Offered: Occasionally

COUN PSY 726 Ethnic and Racial Diversity in Social Development  Credits: 3  
Review of empirical and theoretical research on ethnic/racial diversity in social development across childhood, adolescence and early adulthood with emphasis on implications for counseling and school psychology. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

COUN PSY 729 Advanced Social Psychology  Credits: 3  
Intensive examination of theoretical conceptions in contemporary social psychology, including learning-theoretic, reinforcement, incentive, cognitive, and psychodynamic approaches, and research in selected topic areas reflecting these approaches, such as aggression, attitude formation and change, conformity, limitation and modeling, interpersonal attraction, perception of others, prosocial behavior, and social influence. Prereq: Grad st or Sr st and cons inst  
Typically Offered: Occasionally

COUN PSY 730 Professional Counseling Orientation  Credits: 3  
Provides a broad understanding of professional counselor roles and functions. Also provides a broad understanding of the ethical and legal standards for professional counselors. Students will familiarize themselves with the ACA Code of Ethics, as well as with credentialing standards and organizations relevant to the practice of mental health counseling. Prereq: Declared in a Rehabilitation Psychology or Counseling Psychology graduate program  
Typically Offered: Fall, Spring, Summer

COUN PSY 735 Legal and Ethical Bases of Counseling and Psychology  Credits: 3  
Legal and ethical issues for psychologists, with an emphasis on the APA ethics code and Wisconsin statutes relevant to psychological research and practice. Prereq: Graduate or professional standing  
Typically Offered: Fall

COUN PSY 736 Seminar in Psychology of Individual Differences  Credits: 3  
Graduate-level seminar in the psychology of individual differences, providing broad and general coverage of theory and research related to individual and cultural differences. Prereq: Graduate or professional standing  
Typically Offered: Fall

COUN PSY 737 Seminar in History and Systems of Psychology  Credits: 3  
Graduate-level seminar in the history of psychology, providing broad and general coverage of the development of psychology as a scientific discipline. Includes coverage of philosophy of science and systems of psychological inquiry, with applications to current research in psychology. Prereq: Graduate or professional standing  
Typically Offered: Summer

COUN PSY 740 Abnormal Behavior and Psychopathology  Credits: 3  
This course covers the research and theory of abnormal psychology, including etiology, manifestation, and diagnosis of mental health disorders. The course emphasizes research on developmental psychopathology and cultural issues in assessment and diagnosis. Prereq: Graduate or professional standing  
Typically Offered: Summer

COUN PSY 745 Clinical Mental Health Counseling: Diagnosis and Treatment Planning for Counselors  Credits: 3  
Students examine the treatment and practice implications of different mental health diagnoses and adjustment disorders. The course reviews advanced principles of mental health diagnoses based on DSM 5 and ICD 10 nomenclatures and contextualizes this review for the practice of counseling applied and adapted for a diversity of clients and communities. Additionally, counseling strategies are reviewed for challenges with adjustment within various sociocultural contexts. Students will review empirically supported interventions for specific disorders as well as common factors that have been empirically supported as efficacious across disorders. This course includes an examination of the cultural f  
Typically Offered: Fall
COUN PSY 755 Seminar on Meta-Analysis Credits: 3
Meta-analysis is a set of techniques for synthesizing the results of multiple studies addressing the same research question. Students in the class will learn the method as they conduct a "mini" meta-analysis in an area of interest. Students should have some grounding in statistics in the social sciences, particularly sampling theory and hypothesis testing. Prereq: ED PSYCH 761
Typically Offered: Summer

COUN PSY 777 Crisis and Trauma Counseling Credits: 3
Course focuses on counseling approaches that effectively address crises and trauma, exploring the impact of trauma and crisis and potential neurobiological responses, the development of skills and techniques for assessment and intervention in specific crisis or trauma situations including suicide assessment and intervention. Prereq: Graduate or professional standing
Typically Offered: Summer

COUN PSY 788 Qualitative Research Methods in Education: Field Methods I Credits: 3
Introductory field methods experience in qualitative research. Students will learn to define good research questions, determine which methods of data collection and analysis are useful for addressing those questions, engage in these methods, reflect on their utility in education research. Prereq: Coun Psyc/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 719 or cons inst
Typically Offered: Spring

COUN PSY 789 Qualitative Research Methods in Education: Field Methods II Credits: 3
Focus on data analysis and translation of findings and implications. Students will gain theoretical and practical knowledge and skills regarding coding and analysis techniques, use of qualitative analytic tools, strategies for sharing findings with audiences beyond research team. Prereq: Coun Psyc/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 788
Typically Offered: Spring

COUN PSY 791 Foundations of Clinical Mental Health Counseling Credits: 3
History & development of profession; professional ethics; credentialing; major theories & models; roles; and principles including prevention, intervention, consultation, education, advocacy, & systems promoting mental health and well-being. Prereq: Dept major or consent of instructor
Typically Offered: Occasionally

COUN PSY 800 Theories of Counseling Credits: 3
Historical and philosophical foundations of counseling. Examination of individual counseling theories, research, roles and practices within the counseling profession. Prereq: Dept major or cons inst
Typically Offered: Occasionally

COUN PSY 801 Assessment and Testing in Mental Health Counseling Credits: 3
Reviews the procedures, approaches, theories, and applications associated with the educational and psychometric appraisal of groups and individuals; methods for collecting and evaluating data including validity, reliability and other psychometric properties; social and cultural and other factors associated with evaluating individuals and groups. Prereq: Dept major or consent of instructor; course in measurement or statistics
Typically Offered: Occasionally

COUN PSY 802 Group Dynamics Processing and Counseling Credits: 3
Course reviews practice, theory, and research on group development, dynamics, and group counseling theories; group leadership styles; basic and advanced group counseling methods and skills; and other group approaches. Prereq: Couns Psy 800 & 805 or consent of instructor
Typically Offered: Occasionally

COUN PSY 803 Guidance Program Planning and Management Credits: 3
Consultation and guidance program planning and management from an institutional perspective. Special emphasis given to students at risk and legal and ethical aspects of counseling in K-12 settings. Prereq: Dept majors or cons inst
Typically Offered: Occasionally

COUN PSY 804 Research and Evaluation in Mental Health Counseling Credits: 3
Reviews research design, implementation, report writing, and publication; basic statistics; program evaluation; needs assessment; and ethical and legal considerations. Prereq: Statistics course & dept major or consent of instructor
Typically Offered: Occasionally
COUN PSY 805 Helping Relationships and Techniques Credits: 3
Understanding and development of basic and advanced helping, interviewing, and counseling skills; consultation theory and application; development of counselor and client self understanding; facilitation of client or consultee change. Prereq: Department major or consent of instructor
Typically Offered: Occasionally

COUN PSY 806 Supervised Practicum in Counseling I Credits: 3
Prereq: Dept major, Couns Psy 800, 805 & Master's prgm approval
Typically Offered: Occasionally

COUN PSY 807 Supervised Practicum in Counseling II Credits: 2 - 5
Continuation of 806. Prereq: Couns Psy 802, 665, or 865, 806 & Master's prgm approval
Typically Offered: Occasionally

COUN PSY 808 Supervised Practicum in Counseling III: Advanced Credits: 2 - 5
Continuation of 807. Prereq: Couns Psy 807 & Master's prgm approval
Typically Offered: Occasionally

COUN PSY 810 Professional Development and Clinical Practice Credits: 1 - 6
Full-time involvement. Various assignments. Requires participation in a concurrent seminar. Prereq: Consent of instructor
Typically Offered: Occasionally

COUN PSY 825 Counseling Psychology Techniques With Families Credits: 3
Approaches to counseling intervention for families across the life-cycle. Specific attention paid to family stress. Prereq: Dept major or cons inst
Typically Offered: Occasionally

COUN PSY 850 Consultation Procedures for Counselors Credits: 3
A systematic investigation of and the application of consultation procedures for counselors in educational, community, and rehabilitative agencies. Consultation as applied with individuals and organizational structures. Prereq: Cons inst
Typically Offered: Occasionally

COUN PSY 860 Social and Cultural Foundations of Counseling Credits: 3
Review of theory and research into social identity and cultural foundations of counseling including: (a) the societal context for bias, discrimination and differential treatment of sociocultural groups including but not limited to diversity of sexual orientation, gender expression, social class, cultural/ethnic/racial groups, ability status among other groups; (b) human diversity in social norms, cultural values, social identities, as well as intergroup and intragroup relations; (c) counselors' roles in developing cultural competence, reducing bias and discriminatory treatment of subgroups, and advocating for social justice; and (d) the practice implications of for providing cultural compete
Typically Offered: Occasionally

COUN PSY 865 Lifestyle and Career Development Credits: 3
Theoretical and practical foundations relating to the practice of lifestyle and career counseling, career guidance, and career development. Prereq: Grad standing in counseling or counseling psych or consent of instructor
Typically Offered: Occasionally

COUN PSY 890 Advanced Assessment Techniques in Counseling Psychology Credits: 3
Methods commonly employed by counseling psychologists in the assessment of the problems of living of normal adults. Diagnostic assessment and assessment of career interests, personality, behavior, and social environment. Development of written individual assessment reports. Prereq: Couns Psy 801 or equiv; doctoral stdt in counseling, rehabilitation or school psychology or related studies; or cons inst
Typically Offered: Occasionally

COUN PSY 900 Counseling Psychology Practicum--Foundational Credits: 2 - 6
Foundational practicum and seminar in counseling psychology. Prereq: Couns Psy 808 or equiv, Ph.D. prgm approval. Lec 1: Foundational Lec 2: Advanced (2 sem of lec 1)
Typically Offered: Occasionally
COUN PSY 901 Couns Psych Pract: Group Counseling, Consultation, College Teaching Credits: 1 - 6
Supervised practice in group counseling, consultation, and/or college teaching with a focus on psychosocial development and human relations. Prereq: Cons inst & Couns Psy 952 for grp couns; Couns Psy 850 for consultn. Majors in coun psych, rehab psych, school psych or minor in CP
Typically Offered: Occasionally

COUN PSY 902 Counseling Psychology Practicum in Supervision Credits: 2 - 6
Practicum in supervising counselor trainees in laboratory and field settings. Prereq: Couns Psy 900 & 953, or cons inst. May be repeated
Typically Offered: Occasionally

COUN PSY 904 Counseling Psychology Externship Credits: 1 - 3
Advanced training in counseling psychology assessment, intervention, and/or supervision. Prereq: Couns Psy 903, sufficient progress toward degree completion (e.g., preparation for preliminary examination, progress on dissertation) 
Typically Offered: Fall, Spring

COUN PSY 905 Research Practicum in Counseling Psychology Credits: 3
Supervised research experience in the field of counseling psychology. Students will read about, discuss, and practice research skills that are critical at various phases of the research design and implementation process. Prereq: Couns Psy 950, 1 course in Introductory Statistics
Typically Offered: Fall, Spring

COUN PSY 925 Seminar in Counseling Psychology Credits: 3
History, ethical and professional issues and problems, and current status of the psychological specialty of counseling psychology. Prereq: Couns psych or rehab psych & special ed majors or cons inst
Typically Offered: Occasionally

COUN PSY 926 Legal and Ethical Bases of Counseling Psychology Credits: 3
Examination of ethical codes, statutes, administrative rules, standards for providers, and cases which regulate the practice of professional psychology and the role of the counseling psychologist. Prereq: Dept Ph.D. stdts or cons inst
Typically Offered: Occasionally

COUN PSY 944 Internship Preparation Credits: 1
Primary goal of this course is to help students in Counseling Psychology, Rehabilitation Psychology & Special Education, and the School Psychology Program prepare for their internship by providing resources, guidelines, and support in selecting and applying to internship sites. Prereq: Dissertator status in the department
Typically Offered: Fall

COUN PSY 950 Research Methods in Counseling Psychology Credits: 2 - 3
Historical, philosophical, descriptive, experimental, case-study and other models of research in counseling psychology. Prereq: Dept Ph.D. stdts & Ed Psych 760 or equiv; or cons inst
Typically Offered: Occasionally

COUN PSY 951 Counseling Psychology Research in Individual Intervention Credits: 2 - 3
Theory and research related to the counseling dyad. Prereq: Couns Psy 950 or cons inst
Typically Offered: Occasionally

COUN PSY 953 Counseling Psychology Research in Training and Supervision Credits: 2 - 3
Theory and research in the preparation and supervision of counselors and counseling psychologists. Prereq: Couns Psy 900 & 950 or cons inst
Typically Offered: Occasionally

COUN PSY 954 Seminar: Topical Research in Counseling Psychology Credits: 2 - 3
Special topics in counseling psychology are announced each semester and listed in the Timetable. Prereq: Couns Psy 950 or cons inst
Typically Offered: Occasionally
COUN PSY 956 Seminar: Research in Vocational Psychology and Career Development Credits: 2 - 3
Theory and research in vocational behavior and career development. Prereq: Couns Psy dept major & Couns Psy 665 or equiv; or cons inst
Typically Offered: Occasionally

COUN PSY 960 Research Methods in Counseling Psychology, II Credits: 3
Advanced training in research methods in counseling psychology to build skills in conceptualization, research design, data analysis and interpretation. Prereq: Coun Psy 950, Ed Psych 761 or equiv
Typically Offered: Fall

COUN PSY 990 Research or Thesis Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

COUN PSY 995 Predoctoral Internship Credits: 0
Registration for Ph.D. students who have successfully defended the dissertation and are in the process of completing the required predoctoral internship. Prereq: Successful dissertation defense
Typically Offered: Fall, Spring, Summer

COUN PSY 999 Independent Reading Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

CURRICULUM AND INSTRUCTION

CURRIC 209 Digital Media and Literacy Credits: 3
This course is about digital media in all of its forms - from Wikipedia to YouTube mashups to mobile apps - and how these new ways of doing and making are related to learning. Over the course of semester we will explore theories of knowing and learning as they relate to digital media. Prereq: None
Typically Offered: Spring

CURRIC 240 Critical Aspects of Teaching, Schooling, and Education Credits: 3
This course investigates aspects of social justice and equity as they relate to teaching, schooling and education. Prereq: None
Typically Offered: Fall, Spring

CURRIC 243 Practicum in World Languages (K-12) Credits: 3
Systematic observation and participation in world language classes (French, German, or Spanish) in the public school. Prereq: Adm to K-12 world lang educ prgm; passing the oral proficiency exam in target lang; or cons inst
Typically Offered: Fall

CURRIC 277 Videogames & Learning Credits: 3
Explores current research on videogames and learning. Students critically reflect on the intellectual and educational merits and drawbacks of videogames and how videogame culture shapes how individuals think and learn. Prereq: Sophomore standing
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

CURRIC 290 Practicum in Secondary Science Education Credits: 3
School-based experiences in science classes prior to student teaching. Attention given to planning, instruction, laboratory management and evaluation. Prereq: Adm to secondary science educ prgm
Typically Offered: Fall, Spring

CURRIC 296 Practicum in Secondary School English Credits: 3
Systematic observation and involvement in English instruction, grades 6-12. Prereq: Adm to secondary English educ prgm
Typically Offered: Fall, Spring

CURRIC 300 Introduction to Music Education Credits: 2
Introduction to the field of music education, including philosophy, history, and current practices and trends. Survey of music education in and out of schools as situated within diverse, pluralistic communities. Prereq: Concurrent enrollment in CURRIC/MUSIC 303
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring
CURRIC 301 Music Learning and Teaching 1 Credits: 2
The learning and teaching of music at the elementary and middle school levels. Prereq: Successful completion of CURRIC/MUSIC 300. Admission to the music education certification program. Concurrent enrollment in CURRIC/MUSIC 337
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CURRIC 302 Music Learning and Teaching 2 Credits: 2
The learning and teaching of music at the high school level. Prereq: Successful completion of CURRIC/MUSIC 301 with a grade of "C" or higher. Concurrent enrollment in CURRIC/MUSIC 337
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CURRIC 303 Fieldwork in Music Communities Credits: 1
Fieldwork in music communities in the Madison area. Prereq: Must be taken concurrently with CURRIC/MUSIC 300
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CURRIC 304 Composition, Arrangement, and Orchestration for the Music Teacher Credits: 2
Introduction to the teaching of musical composition, arrangement, and orchestration. Special emphasis on how music technologies interact with conceptions of composition, arrangement, and orchestration; implications for music learning and teaching. Prereq: Successful completion of MUS-PERF 104 or equivalent
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CURRIC 305 Integrating the Teaching of Reading with Other Language Arts Credits: 3
Theory, research and instructional practices supporting the teaching of reading, writing, speaking and listening skills in an integrated curriculum from kindergarten through grade twelve. Prereq: SPE, Com Dis, Art Ed, Mus Ed, Phy Ed, or cons inst. SPE, con reg in Curric 370 & 374 required
General Education: COM B  Typically Offered: Fall, Spring

CURRIC 309 Reading and Writing Across the Content Areas Credits: 3
Prepares prospective teachers of children 8/9 to 12/13 to teach reading and writing across all content areas. Prereq: Admission to the MC-EA Content Area Focused Elementary Education Program
Typically Offered: Fall, Spring

CURRIC 311 Language Acquisition and Use In and Out of Schools, Middle Childhood through Early Adolescence Credits: 3
Focuses on forms and features of English language, and language used in and out of schools. Students explore theories of second language acquisition, school-based language practices, and how to support language development for English learners. Prereq: Admission into the MC-EA program
Typically Offered: Fall

CURRIC 312 ESL/Bilingual Issues Credits: 3
This course addresses social, cultural, and educational issues related to schooling for young English learners. It provides an overview of multiple factors that impact teaching and learning for these students. These issues include (but are not limited to): theories relating to language use and learning; registers and varieties of English; program structures and designs; school and classroom environments, and connections between families and schools. Prereq: None
Typically Offered: Spring

CURRIC 314 Becoming Literate in and out of Schools Credits: 3
Surveys critical issues related to literacy for early childhood teachers including early literacy and language learning, insights into cultural differences related to literacy and language, and knowledge of the social dimensions of literacy. Prereq: Acceptance into the elementary education program
Typically Offered: Fall

CURRIC 315 Reading and Writing Across the Curriculum in Early Childhood Credits: 3
Provides early childhood educators with information, strategies, and activities for instructing young children with literacy. Teachers explore the multiple sources of information that young readers must orchestrate as they learn to read. Prereq: Curric 314
General Education: COM B  Typically Offered: Spring
CURRIC 316 ESL/Bilingual Methods Credits: 3
Designed to help students identify/develop methodological approaches and techniques that coordinate instructional practice with current theories on language and learning. Students will develop criteria for designing, implementing, and evaluating appropriate lessons and materials that integrate with classroom curricula and goals.
Prereq: Admission to the Middle Childhood-Early Adolescence (MC-EA)/ESL Certification Program
Typically Offered: Fall

CURRIC 317 Dimensions of Literacy Credits: 3
Surveys critical literacy issues for elementary teachers. Provides understandings related to literacy and language learning, insights into cultural differences related to literacy and language, and knowledge of the social dimensions of literacy. Addresses various theories that inform literacy teaching including deficit versus strength models of literacy learning, meaning-based models, systematic instruction, and sociocultural approaches.
Prereq: Admission to the Middle Childhood-Early Adolescence (MC-EA)/ESL Certification Program
Typically Offered: Spring

CURRIC 318 Teaching Reading and Writing Credits: 3
Designed to provide elementary educators with information and instructional strategies to support literacy learning. Addresses a wide range of literacy abilities including reading, writing, comprehending, and decoding. Focuses on the continuing developmental processes associated with becoming competent readers and writers.
Prereq: None
General Education: COM B
Typically Offered: Fall

CURRIC 322 Information Design for Visual Learning Credits: 3
Building a foundation in art, design, and visual culture, students will develop information design skills enabling them to create visual presentation tools using a wide variety of digital software and hardware as well as traditional media for instruction and learning. Prereq: None
Typically Offered: Fall, Spring

CURRIC 323 Art in Elementary Education Credits: 3
Basic principles and problems in teaching art; basis for an understanding and evaluation of children's art work.
Prereq: Jr st & adm to Elem or Art TC Prog, or Educ Spec, or cons inst. May not be taken con with Curric/ Art Ed 324
Typically Offered: Fall

CURRIC 324 Art in Secondary Education Credits: 3
Methods and philosophies of teaching art; problems in implementing theories in practical situations in junior and senior high schools. Prereq: Jr st & cons inst
Typically Offered: Fall

CURRIC 325 Educating Young English Learners Credits: 3
Addresses social, cultural, and educational issues related to schooling for young English learners. Provides an overview of multiple factors that impact teaching and learning for these students. Prereq: Acceptance to the EC-ESL Certification Program
Typically Offered: Fall

CURRIC 326 Language Use and Acquisition in Early Childhood Credits: 3
Students will become familiar with aspects of forms and features of the English language, and language use in and out of schools. Analysis of language learning and use across settings provides tools to enhance practice.
Prereq: Admission to the EC-ESL Certification Program
Typically Offered: Spring

CURRIC 327 Methods of Teaching Young English Learners Credits: 3
This course is designed to help students identify, develop and implement methodological approaches and techniques for teaching English learners that coordinate instructional practice with current theories on language and learning. Prereq: Admission to Early Childhood-ESL Certification Program
Typically Offered: Spring

CURRIC 328 Artistic Lives of Children Credits: 3
Prepares prospective teachers of children ages 4/5 to ages 8/9 to teach about the arts and to develop children's artistic selves. Prereq: Admission to the Early Childhood/ English as a Second Language Elementary Education Program
Typically Offered: Fall
CURRIC 330 Practicum in Family and Consumer Education Credits: 2
Systematic observation and involvement in family and consumer sciences instruction. Prereq: Consent of instructor
Typically Offered: Occasionally

CURRIC 332 Teaching Choral Music in the Secondary School Credits: 2
Materials and methods; organizing and administering the choral program; effective teaching and rehearsal techniques for choral groups. Prereq: Admission to Music Ed; con reg in Curric 337; or cons inst
Typically Offered: Fall

CURRIC 337 Practicum in Teaching Music Credits: 1
Observation and participation in K-12 music education settings. Prereq: Admission to Music Education; concurrent registration in CURRIC/MUSIC 301 or CURRIC/MUSIC 302
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

CURRIC 338 The Language of Schooling Credits: 3
Addresses aspects of forms, features and functions of the English language, including an understanding of multiple varieties and registers of English, and how language use functions in and out of schools. Attention to the use of dual/multiple languages by emergent bilinguals, relationships between first and additional languages, and supporting students to develop repertoires that include forms of language for school success. Prereq: Admission to the Middle Childhood- Early Adolescence (MC-EA)/ESL Certification Program
Typically Offered: Fall

CURRIC 339 Cultural Foundations of Learning and Development Credits: 3
Addresses core ideas of learning theory and human development focusing on the middle childhood population. Explores how learning and development are necessarily situated in local and global contexts, offering a cultural frame for understanding the work of teachers. Prereq: Admission to the Middle Childhood-Early Adolescence (MC-EA)/ESL teacher certification program
Typically Offered: Spring

CURRIC 340 Elementary Education Practicum One Credits: 3
In this practicum and its corresponding seminar, students explore the various relationships among education, curriculum, and instruction across contexts of home, community and school. Practica sites are in preschools, neighborhood centers, and after-school sites serving children from diverse backgrounds. Prereq: Admission to the elem educ prog
Typically Offered: Fall, Spring

CURRIC 342 Teaching World Languages (K-8) Credits: 3
An undergraduate course in semester two or three of a four-semester certification sequence; success in first semester courses as well as 'Intermediate High' minimum oral proficiency level in the target language are required. Prereq: Adm to French, German or Spanish TC prog & con reg in Curric 243; passing oral proficiency exam
Typically Offered: Fall, Spring

CURRIC 343 Teaching World Languages (6-12) Credits: 3
Theories, principles, and practical applications of instructional strategies and curriculum development for teaching a world language (Spanish, German, French, etc.) in secondary schools. Prereq: Adm to world lang TC prog & con reg in Curric 243; passing the oral proficiency exam in target lang; or cons inst
Typically Offered: Spring

CURRIC 344 Teaching Vocal Styles in the Music Classroom Credits: 1
Introduction to the teaching and learning of diverse vocal styles. Special emphasis on what makes each style distinct, as well as the acquisition practices associated with each style. Prereq: None
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

CURRIC 354 Teaching Music Credits: 3
Development of musical skills and understandings. Ways of including music in the curriculum. Prereq: EED and completion of previous sequence coursework
Typically Offered: Fall, Spring
CURRIC 358 Practicum in Social Studies in the Secondary School Credits: 3
Prereq: Adm to secondary social studies educ prog
Typically Offered: Fall, Spring

CURRIC 359 Teaching of History and the Other Social Studies Credits: 3
Prereq: Admission to intern program
Typically Offered: Fall, Spring

CURRIC 361 Practicum in Mathematics in the Secondary School Credits: 3
Observation and participation in high school and middle school mathematics classes. Students assume some responsibility for planning and instruction in a class. Prereq: Adm to secondary math educ prog
Typically Offered: Fall, Spring, Summer

CURRIC 362 Drama for Teaching and Learning Credits: 3
This is a methods course useful for all involved in teaching and learning, including foreign languages. Introduction to philosophy, methodology, and practice of the use of drama and performance techniques in any educational or recreational settings. Focus on creativity and embodied and contextual learning, based on current neurological, psychological, and sociological research. A practical class which includes demonstration and practice with children. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

CURRIC 363 Practicum in Early Childhood Education in Kindergarten Credits: 1 - 3
For undergraduate preschool-kindergarten majors. Reserve two mornings, two afternoons, or one day for observation-participation in classrooms. Prereq: C&I 550 or con reg
Typically Offered: Fall, Spring

CURRIC 364 Introduction to Education Credits: 3
Nature of teaching; fundamental issues which confront the teacher and bases for making decisions; overview of the program, field trips to educational sites. Prereq: EED
Typically Offered: Fall, Spring

CURRIC 365 Teaching Mathematics in Inclusive Settings Credits: 4
Designed to introduce preservice teachers to a variety of approaches for teaching mathematics to students in inclusive schools. Prereq: Admission to certification program or consent of instructor
Typically Offered: Spring

CURRIC 367 Elementary Teaching Practicum II Credits: 3
Students will observe, supervise small groups, develop lesson plans for instruction, and teach a series of lessons in the related subject matter of reading, language arts, children's literature, and inclusive schooling. Prereq: EED; Curric 364
Typically Offered: Fall, Spring

CURRIC 368 The Teaching of Reading Credits: 3
This course examines the psycholinguistics of reading; reading in social and cultural contexts in schools, families, communities, and workplaces; and the politics of reading. The course provides strategies for teaching all children to read. Prereq: Declared in Elementary Education program
Typically Offered: Fall, Spring

CURRIC 369 The Teaching of Language Arts Credits: 3
This course focuses on written and oral language development of children from infancy through early adolescence. It explores the cognitive, social, cultural, and political implications of literacy education. Prereq: Declared in Elementary Education program
General Education: COM B Typically Offered: Fall, Spring

CURRIC 370 Teaching Mathematics Credits: 3
Students in this course investigate the mathematics in the elementary school curriculum, how critical mathematics concepts and skills are learned, and how those concepts can be taught. Prereq: Math 130, 131; EED (completion of previous sequence coursework) or SPE
Typically Offered: Fall, Spring
CURRIC 371 Teaching Social Studies Credits: 3
This course examines recent trends in the field of social studies. Students are challenged to develop social studies curricula and instructional strategies that help prepare children for active citizenship in a democratic, multicultural, technological society. Prereq: EED and completion of previous sequence coursework
Typically Offered: Fall, Spring

CURRIC 372 Teaching Science Credits: 3
Students will explore how children learn science, how to create classrooms where children learn to inquire, and how to assess children's learning. Students will conduct their own inquiries as the basis for considering these issues. Prereq: EED and completion of previous sequence coursework
Typically Offered: Fall, Spring

CURRIC 373 Elementary Teaching Practicum III Credits: 3
Students will observe, supervise small groups, develop lesson plans for instruction, and teach a series of lessons relating theories of learning with the subject matter of mathematics and art. Prereq: EED; Curric 367, 368, 369, 422 & Curric/RP & SE 506
Typically Offered: Fall, Spring

CURRIC 374 General Educ Practicum & Instructional Planning for Diverse Learners Credits: 2 - 5
In this practicum and seminar students develop lesson plans, design an integrated curriculum unit, and employ active and collaborative learning strategies in general education classrooms. Prereq: Adm to Spec Educ TC Prog; Jr st & con reg in Curric 305 & 370
Typically Offered: Fall, Spring

CURRIC 375 Proseminar Credits: 1 - 3
An ad hoc seminar for the exploration of new frontiers in curriculum and instruction. Prereq: None
Typically Offered: Fall, Spring, Summer

CURRIC 390 Teaching of Science in Secondary Schools Credits: 3
Prereq: Admission to Secondary Science Certification Progm. Con reg in Curric 290 or cons inst
Typically Offered: Fall, Spring, Summer

CURRIC 393 The Teaching of Secondary School Mathematics I Credits: 3
This course provides an introduction to issues associated with mathematics curriculum and instruction in secondary schools. Instructional strategies, classroom management, and assessment of learning are examined in the context of current and reformed curricula. Prereq: Adm to secondary program
Typically Offered: Fall, Spring, Summer

CURRIC 394 The Teaching of Secondary School Mathematics II Credits: 3
This secondary methods course provides a more indepth examination of the issues associated with mathematics curriculum and instruction in secondary schools. A special emphasis is on curriculum choices and assessment practices. Prereq: Curric 393
Typically Offered: Fall, Spring

CURRIC 395 Uses of Technologies in Secondary School Mathematics Credits: 3
Introduces students to the calculator and computer technologies used in secondary school mathematics and to the ways these technologies can be used effectively in mathematics instruction. Prereq: Admission to SED/Math cert prgm; at least 3 required Math/Stats crses at 300 level or above; and a 4th required crse in Math/Stats or cons reg
Typically Offered: Fall, Spring

CURRIC 396 Teaching of English Credits: 3
Prereq: Admission to English Educ cert progm; con enrl in Curric 296
Typically Offered: Fall, Spring

CURRIC 399 Independent Study Credits: 1 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CURRIC 409 Student Teaching in General and Vocal Music Credits: 6 - 12
Supervised student teaching in general and vocal K-12 settings. Prereq: Successful completion of all requirements for student teaching. Department consent
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
CURRIC  410  Student Teaching in General and Instrumental Music  Credits:  6 - 12  
Supervised student teaching in general and instrumental K-12 settings.  Prereq:  Successful completion of all requirements for student teaching. Department consent  
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

CURRIC  420  Teaching Popular Instrumental Music 1  Credits:  1  
Development of critical perspectives, musical knowledge, and pedagogical skills needed to teach instrumental popular music.  This class will focus on popular string instruments, their electronic counterparts, and emerging technologies for the performance and production of popular music.  Prereq:  None  
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

CURRIC  421  Teaching Popular Instrumental Music 2  Credits:  1  
Development of critical perspectives, musical knowledge, and pedagogical skills needed to teach instrumental popular music.  This class will focus on popular percussion instruments, their electronic counterparts, and emerging technologies for the performance and production of popular music.  Prereq:  None  
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

CURRIC  422  The Teaching of Children's Literature  Credits:  3  
Instructional strategies and curriculum development for teaching children's literature.  Prereq:  EED and completion of previous sequence coursework  
Typically Offered:  Fall, Spring

CURRIC  423  Student Teaching in Art in Elementary Schools  Credits:  2 - 6  
Prereq:  Art Ed, Curric 323  
Typically Offered:  Occasionally

CURRIC  424  Student Teaching in Art in Secondary Schools  Credits:  2 - 6  
Prereq:  Art Ed, Curric 324  
Typically Offered:  Occasionally

CURRIC  425  Concerns and Constraints in Teaching Young Children  Credits:  3  
Examines programmatic, professional, and technical forces that motivate and constrain teachers' work. Questions the assumptions and philosophies that are the foundation of various teaching practices.  Prereq:  Jr st or cons inst  
Typically Offered:  Fall, Spring

CURRIC  426  History, Theory, and Dramatic Criticism in Theatre for Young Audiences  Credits:  3 - 4  
Historiographical perspectives in theatre for young audiences; analysis of plays for young people, theoretical implications, assumptions, current developments.  Prereq:  Theatre 120 or 160 or 200 or 362 or cons inst  
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

CURRIC  427  Methods of Teaching Family and Consumer Education  Credits:  3  
Theory and principles of teaching and learning in family and consumer education.  Prereq:  Junior standing  
Typically Offered:  Spring

CURRIC  428  Program Planning in Family and Consumer Education  Credits:  3  
Theory and processes of program planning for formal and informal educational settings; relation of vocational education to secondary, adult, and continuing education programs.  Prereq:  Junior standing  
Typically Offered:  Fall

CURRIC  430  Student Teaching in Family and Consumer Education  Credits:  12  
Supervised student teaching at the middle and high school levels.  Prereq:  Consent of instructor  
Typically Offered:  Occasionally

CURRIC  431  Young Adult Literature for Schools  Credits:  3  
Survey of needs and interests of young adults, with emphasis on young adult literature, reading interests, and use of trade books and other media in the junior/middle and senior high school curricula.  Prereq:  Jr or Sr st with initial preference given SED Jrs and Srs or admission to English ed or cons inst  
Typically Offered:  Occasionally
CURRIC 440 Elementary Teaching Practicum IV Credits: 3
Students will observe, supervise small groups, develop lesson plans for instruction, and teach a series of lessons in the related subject matter of social studies, science, dance/physical education, and music. Prereq: EED; Curric 370 & 373, Art Ed/Curric 322, Ede Psych 301
Typically Offered: Fall, Spring

CURRIC 442 Student Teaching in World Languages (K-8) Credits: 2 - 12
An undergraduate course in semester two or three of a four-semester certification sequence; success in first semester courses as well as 'Intermediate High' minimum oral proficiency level in the target language are required. Prereq: Adm to French, German or Spanish TC prog & Curric 243 & 342
Typically Offered: Fall, Spring

CURRIC 443 Student Teaching in World Languages (6-12) Credits: 2 - 12
Practice teaching in world languages education programs (French, German, Spanish, etc.) in the secondary schools. Prereq: Adm to world lang TC prog & Curric 243 & 342; appl on file in Fld Exper Off, 109 Education
Typically Offered: Fall, Spring

CURRIC 444 Student Teaching in the Middle School Credits: 1 - 10
Supervised student teaching in the middle school for elementary education majors and special certification students. Prereq: Adm to Elem TC Prog; Curric 370, 371, 372 & 373 or concurrent registration
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

CURRIC 457 Student Teaching in Health Education Credits: 2 - 8
Prereq: Sr st; Curric & Instr 520
Typically Offered: Fall, Spring

CURRIC 458 Student Teaching in History and Social Studies in the Middle School Credits: 2 - 12
Supervised student teaching in the middle school. Students employ and evaluate a variety of approaches to social studies curriculum and instruction. Prereq: Adm to stdt teaching prog; adv reg in 109 Educ Bldg
Typically Offered: Fall, Spring

CURRIC 459 Student Teaching in History and Social Studies in the High School Credits: 2 - 12
Prereq: Adm to secondary social studies educ prog
Typically Offered: Fall, Spring

CURRIC 460 International Student Teaching Credits: 2 - 12
Supervised student teaching in an international location. Prereq: Successful completion of all pre-requisite coursework for student teaching, minimum 2.5 GPA
Typically Offered: Fall, Spring, Summer

CURRIC 462 Theatre for Young Audiences: Production Credits: 3 - 6
A practical class: preparation and performance of a production for young audiences, with development and implementation of accompanying educational material. Prereq: Cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

CURRIC 463 Seminar in Kindergarten Through Middle School Teaching Credits: 2 - 6
Workshop to provide an opportunity to make specific plans for the full-time teaching experience. Prereq: Curric 370, 371, 372 & 373; con reg in Curric 464 or 465 or 498
Typically Offered: Fall, Spring

CURRIC 464 Student Teaching in the Elementary School Credits: 1 - 10
Sect 1: For undergraduate elementary education majors and special certification students. Sect 2: For child development majors satisfying kindergarten certification. Prereq: Adm to Elem or PK3 TC Prog; Curric 370, 371, 372 & 373 or con reg
Typically Offered: Fall, Spring

CURRIC 465 Student Teaching in the Kindergarten Credits: 1 - 10
Prereq: Adm to PK3 TC Prog; Curric 370, 371, 372 & 373 or con reg
Typically Offered: Fall, Spring

CURRIC 466 Student Teaching in Music-Elementary Credits: 2 - 12
Prereq: Adv reg in stdt teach ofc, 109 Educ
Typically Offered: Fall, Spring
CURRIC 467 Student Teaching in Music-Secondary Credits: 2 - 12
Prereq: Adv reg in field experience office, 109 Education
Typically Offered: Fall, Spring

CURRIC 468 Early Childhood/English as a Second Language Student Teaching Credits: 5 - 10
Student teaching for students in the Early Childhood/English as a Second Language certification program.
Prereq: Admission to EC/ESL certification program; successful completion of program semesters 1 - 3
Typically Offered: Spring

CURRIC 470 Practicum in Elementary School Art Credits: 3
Selection of appropriate instructional materials and their application to a practical problem in teaching to selected students. Prereq: Jr st & cons inst
Typically Offered: Fall

CURRIC 471 Mathematics for Secondary School Teachers Credits: 3
This is a capstone course for future middle and high school teachers, drawing connections between higher mathematics and school mathematics. Prereq: Math 341 or Math 375 or Math 421, and Math 461
L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Spring

CURRIC 472 Student Teaching of English in the Middle School Credits: 2 - 12
Supervised student teaching in the middle school. Students employ and evaluate a variety of approaches to English curriculum and instruction. Prereq: Admission to English teacher cert prog. Adv reg in Educ Academic Services Off, B117 Education Bldg
Typically Offered: Fall, Spring

CURRIC 478 Elementary School Physical Education Student Teaching Credits: 2 - 8
Prereq: Adv reg in stdt tchg ofc, 109 Educ
Typically Offered: Fall, Spring

CURRIC 479 Middle School or High School Physical Education Student Teaching Credits: 2 - 8
Prereq: Adv reg in stdt tchg ofc, 109 Educ
Typically Offered: Fall, Spring

CURRIC 490 Student Teaching in Science in the High School Credits: 2 - 12
Prereq: Adm to secondary science educ prgm
Typically Offered: Fall, Spring

CURRIC 493 Practicum in Secondary School Art Credits: 3
Observation and instruction of elementary and secondary pupils in a laboratory setting. Lecture and discussion of topics related to art instruction. Prereq: Art Ed 323 & 470
Typically Offered: Fall

CURRIC 494 Student Teaching in High School Mathematics Credits: 2 - 12
Prereq: Adv reg in stdt tchg ofc, 109 Educ
Typically Offered: Fall, Spring

CURRIC 495 Student Teaching in Science in the Middle School Credits: 2 - 12
Supervised student teaching at the middle school. Students employ and evaluate a variety of approaches to science curriculum and instruction. Prereq: Curric 290, 390; admission to cert prog; appl on file in Fld Exper Off, 109 Education
Typically Offered: Fall, Spring

CURRIC 496 Student Teaching of English in the High School Credits: 2 - 12
Prereq: GPA of 2.75 in English. Adv reg in stdt tchg ofc, 109 Educ
Typically Offered: Fall, Spring

CURRIC 497 Student Teaching in Middle School Mathematics Credits: 4 - 12
Supervised student teaching at the middle school. Students employ and evaluate a variety of approaches to mathematics curriculum and instruction. Prereq: Adm to secondary math educ prgm
Typically Offered: Fall, Spring
CURRIC 500 Literacy and Language Development Credits: 3
Survey and critical analysis of language and literacy development in and out of school, with a focus on the elementary school years. Prereq: Grad st or cons inst
Typically Offered: Fall, Spring, Summer

CURRIC 501 Health Information for Teachers Credits: 3
Basic scientific health knowledge and its application to the total school program. Prereq: Junior standing or consent of instructor
Typically Offered: Fall, Spring

CURRIC 503 Literacy Across the Curriculum Credits: 3
Survey and critical analysis of theories and practices for literacy development across the curriculum. Reading, writing, oral language, and technology as situated in the content areas. Focus on middle and high schools. Prereq: Curric 303 or 368, or equiv, or cons inst
Typically Offered: Fall, Spring, Summer

CURRIC 504 Literacy Assessment and Intervention Credits: 3
Theories and practices in regard to assessing and intervening in literacy development for a variety of different sorts of learners, including those facing various reading or writing difficulties.
Typically Offered: Fall, Spring

CURRIC 506 Strategies for Inclusive Schooling Credits: 3
Comparison of historical and current practices in special education; legal, philosophical, and programmatic changes leading to inclusive models of education; emphasis on concepts of collaboration, cooperative learning structures, and curricular and instructional adaptations to accommodate learners with disabilities in general education classrooms. Prereq: So st
Typically Offered: Fall, Spring, Summer

CURRIC 507 Inclusive Education in Secondary Schools Credits: 2
Comparison of historical and current practices in special education; legal, philosophical, and programmatic changes leading to inclusive models of education; emphasis on concepts of universal design for learning, methods of differentiation, collaboration among educators, and responsive instructional strategies for learners with disabilities in general education classrooms. Prereq: Admission to the Secondary Education Masters Program
Typically Offered: Fall

CURRIC 508 Implementing Universal Design: Curriculum Development & Analysis Credits: 1
Participants will engage in joint inquiry and analysis of curriculum, instruction, & assessment using principles of Universal Design and differentiation. Collegial dialogue protocols will be studied and utilized to interrogate previously taught or anticipated units of instruction. Outcomes of the process will be revision & refinement of universally designed curricula. Prereq: Admission to the Secondary Education Masters Program and completion of CURRIC 507
Typically Offered: Summer

CURRIC 515 Holocaust: History, Memory and Education Credits: 3
This course explores the ways in which Holocaust history, memory and education are mutually entangled, politically charged and morally complex. Using primarily American sites of memory, students will critically analyze a variety of representations of the Shoah--in literature, films, memoirs, monuments, museums and classrooms. Prereq: Jr st or cons inst

CURRIC 516 Religion and Public Education Credits: 3
Examines theories and practices related to the role of religion in public schooling and its accompanying tensions: political and philosophical, practical and personal. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CURRIC 525 Theatre in Education Credits: 3 - 4
Theory and practice of theatre in elementary and secondary educational settings. Students in this course devise, script, and present programs as actor-teachers and interact with audiences. Prereq: So st & cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
CURRIC 536 Teaching Diverse Youth in Secondary School Credits: 2
Teaching Diverse Youth is designed to 1) to foster understandings of culturally relevant pedagogy and 2) to promote cultural awareness at the individual and institutional levels, and equitable and anti-racist behaviors as well as social justice in educational practices. As a class, we will examine the meanings of multicultural education and will work to understand how teachers can encourage, develop, and support learning, and create practices that establish high expectations for all learners. Students are expected to reflect on how they, the schooling they have experienced, and other social institutions participate in maintaining the hegemony and power of whiteness, middle class power, able
Typically Offered: Summer

CURRIC 537 Teaching Diverse Learners Credits: 3
This course is designed to foster cultural awareness at the individual and institutional levels, and to promote equitable and anti-racist behaviors as well as social justice in educational practices. Prereq: Admission to Masters of Science in Professional Education (MSPE) program
Typically Offered: Fall, Spring

CURRIC 541 Organization and Administration of School Health Programs Credits: 3
Theory, philosophy, patterns, and responsibilities. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

CURRIC 542 Teacher Education About Alcohol and Other Drugs Credits: 3
Social and cultural factors which influence the use and abuse of alcohol and other selected psychoactive drugs. Emphasis on educational concepts and processes important for instructional planning, curriculum strategies, value clarification, evaluation of learning, and countermeasure research developments. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

CURRIC 550 Methods, Materials and Activities in Early Childhood Education Credits: 3
Activities and materials for use in preschools and kindergartens related to different models of early childhood education, to developmentally appropriate curricular goals, and to professional practices of early childhood educators. Prereq: Declared in the Elementary Education program
Typically Offered: Fall, Spring, Summer

CURRIC 555 Values and Character Education Credits: 3
An analysis of the function of values and valuing process in the social studies. Pedagogical problems associated with handling normative content and questions in the classroom. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CURRIC 559 Advanced Practices in the Teaching of Social Studies Credits: 3
This course assumes understanding and skill in basic classroom management, lesson and unit planning. Content will include research and practice on such topics as social studies instruction for diverse pupils, critical thinking, and authentic assessment. Prereq: Curric 359 or cons inst
Typically Offered: Fall, Spring

CURRIC 561 Teacher Education in Human Sexuality Credits: 3
Student teachers plan educational experiences through which children and youth can learn about human potential in sexuality. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

CURRIC 562 Drama in Education: Advanced Studies Credits: 3 - 4
Advanced studies in theories and practices of drama in education. Prereq: Theatre 362 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CURRIC 564 Advanced Problems on the Teaching of World Languages Credits: 3
Recent developments in technologies and methods of teaching world languages; exploration and analysis of teaching practices; critical review of relevant literature and adaptation of materials; recent innovations in elementary and secondary world language teaching. Prereq: Tchg experience or cons inst
Typically Offered: Fall, Spring
CURRIC 566 Practicum in Special Education in the Arts Credits: 1 - 3
Field experience with special education students in classroom settings in music and art. Prereq: Jr st in special field; completion or con reg in Curric 565; or cons inst
Typically Offered: Fall, Spring, Summer

CURRIC 567 Issues, Materials and Methods in Health Education Credits: 3
Principles, materials, and methods. Prereq: Curric 501, 541, 542, & 561 or consent of instructor
Typically Offered: Fall, Spring, Summer

CURRIC 570 Art in Exceptional Education Credits: 3
Approaches to developing programs and teaching art to exceptional students in public schools, special schools, and community institutions. Prereq: Jr st & 3 cr in studio art, or cons inst
Typically Offered: Spring

CURRIC 590 Advanced Practices in the Teaching of Science Credits: 3
Prereq: Curric 390 or cons inst
Typically Offered: Fall, Spring

CURRIC 596 Advanced Practices in Teaching English in Secondary Schools Credits: 3
Using an inquiry framework in which beginning and experienced teachers act as researchers, this course will explore central issues of theory and practice in the teaching of English in middle and secondary schools. Prereq: Curric 396 or cons inst
Typically Offered: Fall, Spring

CURRIC 604 Seminar on Literacy Credits: 3
Examines current research on reading, writing and varieties of oral language from perspective of sociocognitive and sociocultural literacy studies. Course deals with various theories of school, community, and workplace literacy, different approaches to literacy pedagogy and curricula, assessment practices, and interventions for learners with various needs. Prereq: Grad st
Typically Offered: Fall, Spring, Summer

CURRIC 606 Critical Perspectives on Digital Media in Education Credits: 2 - 3
Critical review of literature on digital media and learning; utilization of digital media inside and outside classrooms, lab experience. Prereq: Graduate standing
Typically Offered: Fall, Spring

CURRIC 620 Field Project in Library and Information Agencies Credits: 3
Analysis of field experience through seminars, individual conferences, required reading and consultations with cooperating librarians and information specialists. Enrollment limited. Prereq: LIS 450, 451 & 551; electives appropriate to the proposed project; & cons inst
Typically Offered: Occasionally

CURRIC 626 Action Research in Schools Credits: 3
Provides instruction and support to students who want to conduct research on their own practices in schools. Prereq: Grad st or cons inst
Typically Offered: Fall, Spring

CURRIC 630 Professional Development for Schools and Community Educators Credits: 1 - 6
Specific construction and theoretical implications for professional in-service and field student teaching assignments. Learning materials and school systems program needs for children. Prereq: None
Typically Offered: Fall, Spring, Summer

CURRIC 632 Literature and Literacy Credits: 3
Role of literature in literacy development from pre-school to high school. Theories and practices in regard to interpretation, reader response, criticism, genres, multiculturalism, and literature for early literacy and in content learning. Prereq: Open to Freshmen
Typically Offered: Fall, Spring

CURRIC 635 Epistemology of Mathematics for Teachers Credits: 2
Course focuses on the nature of knowing mathematics. Prereq: Must be admitted to the Graduate Secondary Teacher Education Program
Typically Offered: Summer
<table>
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<tr>
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<tbody>
<tr>
<td>CURRIC 636</td>
<td>Mathematical Knowledge for Teaching</td>
<td>3</td>
<td>This course addresses the mathematical concepts necessary for the effective instruction of number and generalization at the middle school level. Prereq: Cons inst</td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>CURRIC 637</td>
<td>Mathematical Knowledge for Teaching: Ratios and Proportions</td>
<td>3</td>
<td>This course addresses the mathematical concepts necessary for the effective instruction of rational number and proportional reasoning at the middle school level. Prereq: Cons inst</td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>CURRIC 638</td>
<td>Mathematical Knowledge for Teaching: Geometry and Measurement</td>
<td>3</td>
<td>This course addresses the mathematical concepts necessary for the effective instruction of geometry, measurement, and trigonometry at the middle school level. Prereq: Cons inst</td>
<td></td>
<td>Spring</td>
</tr>
<tr>
<td>CURRIC 639</td>
<td>Mathematical Knowledge for Teaching: Algebra and Functions</td>
<td>3</td>
<td>This course addresses the mathematical concepts necessary for the effective instruction of algebra and functions at the middle school level. Prereq: Cons inst</td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>CURRIC 640</td>
<td>Mathematical Knowledge for Teaching: Conjecturing and Reasoning</td>
<td>3</td>
<td>This course addresses the mathematical concepts necessary for supporting students' abilities to conjecture, justify, and prove in middle-school mathematics. Prereq: Cons inst</td>
<td></td>
<td>Spring</td>
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<tr>
<td>CURRIC 660</td>
<td>Early Childhood Education</td>
<td>2-3</td>
<td>Trends, basic principles, issues, evaluation, and curriculum planning for the group education of preschool children. Prereq: Jr st</td>
<td></td>
<td>Fall, Spring, Summer</td>
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<tr>
<td>CURRIC 662</td>
<td>Elementary School Curriculum</td>
<td>3</td>
<td>Basic concepts of curriculum, the relation of foundation areas to the problems of curriculum development, modern trends in developing educational programs for children. Prereq: Grad st or adm to 2nd deg elem TC Prog or Spec or cons inst</td>
<td></td>
<td>Spring</td>
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<tr>
<td>CURRIC 663</td>
<td>Learning Environments for Initial Education Programs</td>
<td>3</td>
<td>Historical residues, basic theories, and contemporary patterns of instruction underlying educational programs for the very young child (3-9). Integrating and contrasting features of comprehensive curricula for the very young: play, communication foundations, self concepts, health, performing arts, and other areas of educational concern. Prereq: Junior standing</td>
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<td>Fall, Spring, Summer</td>
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<tr>
<td>CURRIC 671</td>
<td>Proseminar in Music Education</td>
<td>2</td>
<td>Subject differs each semester. Current topics related to methodology in the various areas: elementary, junior high school general music, choral music in secondary schools, instrumental music. Prereq: Grad st or Spec with tchg exper or cons inst</td>
<td></td>
<td>Fall, Spring, Summer</td>
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<tr>
<td>CURRIC 672</td>
<td>Issues in ESL Education</td>
<td>3</td>
<td>Overview of issues that influence and determine the language and academic development of English language learners. Students explore social, cultural and educational contexts and practices as they relate to the education of this population. Prereq: Grad st or Ed Sp</td>
<td></td>
<td>Spring</td>
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<tr>
<td>CURRIC 673</td>
<td>Learning Second Language and Literacies</td>
<td>1-6</td>
<td>Explores theoretical and practical aspects of second language and literacy development in schooling for English learners. Includes a fieldwork component. Informed by theories, students conduct and analyze data from classroom-based research, investigating implications for learning and teaching. Prereq: Grad standing or Sp</td>
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<td>Occasionally</td>
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</tbody>
</table>
CURRIC 674 Advanced Methods in Teaching English as a Second Language Credits: 3 - 6
Designed to help students identify/develop and implement methodological approaches and techniques for supporting the language and literacy development of English learners that coordinate with current theories on language and learning. Prereq: Grad standing or Ed Sp, authorization required. Typically Offered: Fall

CURRIC 675 General Seminar Credits: 1 - 3
Prereq: Variable
Typically Offered: Fall, Spring, Summer

CURRIC 676 Bilingualism and Biliteracy in Schools Credits: 3 - 4
This course addresses issues in bilingual education, including: program design; patterns of language use; effective instruction to promote dual language development and biliteracy; integrated curriculum; assessment; history and context; national and local policy. It includes a practicum component. Prereq: Admission to the bilingual cert program. Typically Offered: Summer

CURRIC 677 Education, Health and Sexuality: Global Perspective and Policies Credits: 3
Employs a lifecycle approach to examine the issues at the intersection of education and health that people face throughout the world, but especially in poor countries. Particular attention is placed on sexuality education, reproductive health, and infectious disease epidemics. L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CURRIC 690 Independent Field Work Credits: 1 - 9
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CURRIC 699 Independent Reading Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

CURRIC 702 Sociocultural Theory Credits: 3
Sociocultural theories posit that the fundamental mechanism for teaching and learning is social interaction. In this course, we will examine the varying positions within this general body of theoretical literature, compare and contrast how each position construes the fundamentally social nature of thinking and learning, and consider the methods entailed by each given theory. Prereq: Graduate Standing
Typically Offered: Spring

CURRIC 704 Curriculum Planning Credits: 3
The concept of curriculum in modern American education. Prereq: Grad st
Typically Offered: Occasionally

CURRIC 706 Secondary School Curriculum Credits: 3
Functions of the secondary school, recent developments and varying approaches to goals, integration and balance in the curriculum. Prereq: Grad st or cons inst
Typically Offered: Occasionally

CURRIC 708 The Study of Teaching Credits: 3
Alternative research approaches to the study of teaching; for example, process-product, aptitude-treatment interaction, ethnographic. Prereq: Grad st
Typically Offered: Occasionally

CURRIC 709 Digital Media & Technology in Schools Credits: 1
Introduction for secondary educators to the role of digital media technologies in their classrooms. The course will cover major topics in digital media in teaching and students will be expected to design several instructional units that incorporate technology meaningfully into their classrooms. Prereq: Graduate or professional standing
Typically Offered: Spring
CURRIC 711 Culture, Curriculum, and Learning Credits: 3
Exploration of literature and recent debates related to cultural and linguistic diversity, learning, and instruction. Discussions will focus on education within and across home, community, and school contexts, including a focus on home-school-community relationships. Prereq: Summer registration is restricted to those admitted to Teach for Diversity MAT Degree Programs
Typically Offered: Occasionally

CURRIC 712 Introduction to Curriculum and Instruction: Research and resources Credits: 3
This is a required course for all new doctoral or masters students in C&I in which they will become familiar with faculty, procedures, policy, and the wide range of research in this area. Prereq: None
Typically Offered: Fall, Spring

CURRIC 713 Technology Integration for Teaching and Learning Credits: 1 - 3
This course provides a broad introduction to the field of Educational Communications and Technology (ECT) and attempts to balance theoretical inquiry with “hands on” design work. During the course, we will cover the theoretical foundations of ECT and explore new developments in technology, theory and practice. The goal is to open up new horizons for practicing and pre-service teachers to leverage technology for their own professional and personal empowerment through thinking systematically about technology and the classroom. Prereq: Graduate or professional standing
Typically Offered: Spring, Summer

CURRIC 714 Research and Evaluation Paradigms in Curriculum and Instruction Credits: 3
An analysis of differing orientations to evaluation and research. Emphasis on assumptions, attitudes, and expectations of what constitutes scientific knowledge and explanation; relationship of research orientation, methods of inquiry, theory, and practice. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CURRIC 715 Design of Research in Curriculum and Instruction Credits: 3
Introductory survey of empirical foundations of research. Development of methods and tools of research. Prereq: Grad st & cons inst
Typically Offered: Occasionally

CURRIC 716 Reform and Change in Curriculum and Instruction Credits: 3
Social, political and epistemological assumptions underlying current efforts towards curriculum and instructional reform in elementary and secondary schools. Prereq: Grad st
Typically Offered: Occasionally

CURRIC 718 Introduction to Narrative Inquiry Credits: 3
The course includes material on framing, generating, gathering, and analyzing stories that people tell. Prereq: Grad or special students
Typically Offered: Fall

CURRIC 719 Introduction to Qualitative Research Credits: 3
Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prereq: Grad st
Typically Offered: Occasionally

CURRIC 720 School Practicum in Communication Sciences & Disorders Credits: 3
Supervised experience in a public/private school setting with children manifesting speech, language and/or hearing problems. The practicum shall involve evaluation and management of a variety of communicative disorders, as well as participation in the multi-disciplinary team process. Prereq: Com Dis 390 or 790 or equiv prior clinic practice; Graduate standing; consent of instructor; and advanced registration in Office of Field Experience
L&S Level: Advanced Typically Offered: Fall, Spring

CURRIC 721 Research in Computing Education Credits: 3
Seminar on the history, theories, philosophies, tools, research, and technologies of Computing Education, with a focus on K-12 Computer Science Education. Prereq: Graduate or professional standing
Typically Offered: Every Other Fall
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<tr>
<td>CURRIC 723</td>
<td>Life History: Theories &amp; Methods</td>
<td>3</td>
<td>Focuses on framing, generating, collecting, and analyzing data gathered from interviews and documents related to people's lives. Prereq: Graduate or special students may take the course, no prerequisites.</td>
<td>Spring</td>
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<tr>
<td>CURRIC 726</td>
<td>Qualitative Methods of Studying Children and Contexts</td>
<td>3</td>
<td>Examines the theoretical, methodological, and ethical issues in studying children from interpretive perspectives. A small group research project, focused on examination of an individual child and context, provides an introduction to qualitative methods within fieldwork. Prereq: Grad st</td>
<td>Occasionally</td>
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<tr>
<td>CURRIC 729</td>
<td>Classroom Management for Secondary Educators</td>
<td>1</td>
<td>Classroom Management for Secondary Educators is designed to inform students of basic principles of good classroom management within a social justice framework. That is, students will learn about motivating student learning through clear classroom management strategies, communicating with parents and families regarding student behavior, establishing positive teacher-student relationships, responding to challenging student behaviors, and responding to bullying. Prereq: Graduate or professional standing</td>
<td>Spring</td>
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<tr>
<td>CURRIC 731</td>
<td>Collaborative Teamwork for Inclusive School Reform</td>
<td>3</td>
<td>The process of collaboration and its multiple forms among professionals in the creation of inclusive school communities are critically examined. Various methods and tools for collaboration are explored that promote effective team relationships, problem solving, and co-planning of differentiated curriculum and instruction. Activities and projects are problem-based and focus on generating solutions to programmatic, student-specific, or school-wide issues related to inclusive education. Class participants acquire skills to engage in collaborative teamwork and act as change facilitators within a school system. Prereq: Admission to the Masters of Science for Professional Educators program, grad</td>
<td>Summer</td>
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<tr>
<td>CURRIC 732</td>
<td>Foundations of Science Education</td>
<td>3</td>
<td>Examination of the interrelationships among education, science, and society in the United States since the mid-nineteenth century. Analysis of current issues and problems in science education from this historical perspective. Prereq: Grad st or cons inst</td>
<td>Occasionally</td>
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<tr>
<td>CURRIC 733</td>
<td>Public Engagement with Science</td>
<td>3</td>
<td>This course examines the influence of science in everyday life. It is intended to give students both academic context (research and theory) and a firsthand look at how science matters to people who are not themselves scientists. Prereq: None</td>
<td>Every Other Fall</td>
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<tr>
<td>CURRIC 734</td>
<td>Science Studies and Science Education</td>
<td>3</td>
<td>Examination of the key ideas from the field of science and technology studies (history, philosophy, sociology of science, etc.) and how they have been taken up in both the school science curriculum as well as the science education research community. Prereq: None</td>
<td>Occasionally</td>
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<tr>
<td>CURRIC 735</td>
<td>Epistemic Practice and Science Teaching</td>
<td>2</td>
<td>This course pursues the following questions: Where does our scientific knowledge come from and how does science work to generate that knowledge? In what ways might science education meaningfully engage learners in science? This course is part of the Secondary Teacher Education Master's with Certification program for students pursuing Secondary science teacher certification. Other interested students may inquire about the course by contacting the instructor. Prereq: Graduate or professional standing</td>
<td>Summer</td>
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<tr>
<td>CURRIC 739</td>
<td>Assessment and Data Use for Instructional Improvement in Secondary Schools</td>
<td>1</td>
<td>This course will explore four themes of evidence-based practice in teaching: 1) teaching with assessment in mind, 2) assessment for learning and assessment of learning, 3) constructing, modifying, and analyzing assessment, 4) making use of data about your students to improve teaching and learning. This course is part of the Secondary Teacher Education program for students pursuing Master's with Teacher Certification. Prereq: Graduate or professional standing</td>
<td>Summer</td>
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</table>
CURRIC 743 Educational Technology for Deep Language Learning Credits: 1 - 3
Critical understanding of recent developments in research related to educational technology and its implications for World Language Education and Second Language Acquisition. The course addresses the limits of instrumental reason and the need for reflective practice and theoretical wisdom for appropriate technology integration into teaching, global learning of other cultures, computer-assisted language learning (CALL), Computer-Mediated-Communication (CMC), learning languages in Multi-User Virtual Environments (MUVE), multimedia and emerging technologies in teaching languages and culture. Prereq: Graduate standing or consent of instructor
Typically Offered: Occasionally

CURRIC 744 Perspectives in Multicultural Education Credits: 3
A critical examination of the conceptual and theoretical traditions that contribute to the educational reform and ideology known as multicultural education. Includes readings from ethnic studies, black studies, feminist theory, antiracist pedagogy, bilingual education, and critical race theory. Prereq: Grad st
Typically Offered: Occasionally

CURRIC 746 The Adult Learner: Implications for Curriculum and Instruction Credits: 3
Analysis of the principles and instructional models applicable to the instruction of adults. Attention to the integration of research on learning and teaching in informal and formal educational settings. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CURRIC 748 Proseminar: Issues & Problems in Teaching-Learning in Adult Educ Credits: 3
A planned, systematic analysis of basic issues; instructional group strategies, instructional modes, independent learning, etc. Prereq: Cons inst
Typically Offered: Occasionally

CURRIC 760 Sex/Gender-Related Issues in Curriculum and Instruction Credits: 3
A poststructural feminist analysis of educational discourse and practice; examines selected sex/gender issues in curriculum and instruction; explores some implications for classroom teaching of the complex interrelationships between sex/gender, race, social class, sexuality, and ability/disability. Prereq: Cons inst
Typically Offered: Occasionally

CURRIC 764 Globalization and Linguistic Human Rights in Education Credits: 2 - 3
An introduction to language instruction policies and linguistic human rights. Examines teaching and learning in a multilingual society. Explores the various dimensions of the language used in the schools for instruction in different countries during the globalization process. Prereq: Grad st
Typically Offered: Fall, Spring, Summer

CURRIC 765 Globalization and Teaching: Dimensions for Curriculum Planning Credits: 3
Critically examines efforts to introduce teaching and curriculum on globalization in elementary and secondary schooling, as well as in teacher education. Prereq: Enrolled in Departmental Global Studies, Teaching, and the Curriculum (GSTC) program or cons inst
Typically Offered: Fall, Summer

CURRIC 772 Literacy as a Civil Right Credits: 3
Inspired by a symposium entitled "Literacy as a Civil Right" featured at the American Educational Research Association Annual Meeting in Chicago, Illinois in April 2007 and Stuart Greene's (2008) edited volume Literacy as a civil right: Reclaiming social justice in literacy education, this seminar will examine research and scholarship committed to ensuring access to critical literacies for all people and more specifically for youth who have been marginalized socially, educationally, economically, and politically in the context of the United States and abroad. Throughout this course, students will examine the significance of upholding literacy as "civil" and "human" rights. Additionally, stud
Typically Offered: Every Other Fall

CURRIC 774 Literacy Research Methods Credits: 3
Introduction to a range of qualitative inquiry texts that examine the intersections of language, literacy, and culture. Examine ethnographies and case studies that ask questions about the literacy practices of children, youth, and adults in both schools and out-of-school contexts using critically conscious and humanizing research methodologies. Students will become knowledgeable about pivotal qualitative studies in language, literacy, and culture as they begin to develop their own identities as methodologists Prereq: None.
Typically Offered: Every Other Fall
CURRIC 778 Teaching, Literacies, and Identities Credits: 3
In this class, we will explore issues related to identity through three interrelated concepts--teaching, literacies, and diversity--from a variety of perspectives, including psychology, sociology, narrative studies, and sociocultural perspectives. Within each perspective we will explore what "identity" means and how each conceptualization is related to teaching and learning, especially for children from diverse communities and backgrounds. Prereq: Graduate or professional standing
Typically Offered: Spring

CURRIC 788 Qualitative Research Methods in Education: Field Methods I Credits: 3
Introductory field methods experience in qualitative research. Students will learn to define good research questions, determine which methods of data collection and analysis are useful for addressing those questions, engage in these methods, reflect on their utility in education research. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 719 or cons inst
Typically Offered: Spring

CURRIC 789 Qualitative Research Methods in Education: Field Methods II Credits: 3
Focus on data analysis and translation of finds and implications. Students will gain theoretical and practical knowledge and skills regarding coding and analysis techniques, use of qualitative analytic tools, strategies for sharing findings with audiences beyond research team. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 788
Typically Offered: Spring

CURRIC 802 Discourse Analysis Credits: 3
Theories and methods for analyzing "discourse" or language in use. Covers formal and informal written text, formal and informal oral speech, and face-to-face and online social interaction, with particular focus on cultural and social institutions and norms (such as school) and learning through social interaction. Prereq: Graduate standing
Typically Offered: Occasionally

CURRIC 803 Computational Research Methods Credits: 3
Provides a broad overview of ways of formulating and investigating novel questions with tools from educational data mining and learning analytics including social network analysis, natural language processing, Markov modeling, Bayesian inference, and agent-based modeling. Prereq: Graduate or professional standing
Typically Offered: Every Other Fall

CURRIC 805 Guiding and Directing the School Reading Program Credits: 3
Issues and practices in reading program development from first through twelfth grade. Emphasis on the various roles and responsibilities of instructional leaders in reading program development. Prereq: Cons inst
Typically Offered: Occasionally

CURRIC 810 Goals, Content and Programs in Mathematics Education Credits: 3
Persistent issues. Analysis of current programs and the identification of the mathematical content of K-12 education. Prereq: Cons inst
Typically Offered: Occasionally

CURRIC 811 The Instruction of Mathematics Credits: 3
Persistent issues. Analysis of current research and examination of current programs to identify how they reflect different theories of learning and instruction. Prereq: C&I 810 or cons inst
Typically Offered: Occasionally

CURRIC 812 Curricular Issues in Mathematics Education Credits: 3
Analysis of research and evaluation of programs as they operate within the school environment. Prereq: C&I 811 or cons inst
Typically Offered: Occasionally

CURRIC 821 Constructionism Credits: 3
This course is a survey of constructionist theory, research, and tools. Course content and activities will help students develop a deeper understanding of the history, theories, philosophies, tools, research, and technologies of constructionism and its children. Prereq: Graduate standing
Typically Offered: Occasionally
CURRIC 829 Proseminar in American Curriculum Theory: 1890-Present  Credits: 3
Major movements in the field such as Herbartianism, scientific curriculum planning, rational decision making, group process, and structure of the disciplines. Analysis of major documents and leading figures.  Prereq:  Curric 662 or 704 or 706 or cons inst
Typically Offered:  Occasionally

CURRIC 830 Theory and Design of the Curriculum  Credits: 3
Dimensions of theory and their interrelationships with reference to the curriculum field.  Prereq:  Cons inst
Typically Offered:  Occasionally

CURRIC 832 Teaching for Conceptual Change in Science  Credits: 3
Examination of science teaching strategies and programs based on research into students' conceptions of natural phenomena.  Prereq:  Grad st or cons inst
Typically Offered:  Occasionally

CURRIC 840 Field Work in School Reading Programs  Credits: 2 - 7
Supervised field experience in working with school-wide reading programs.  Prereq:  Cons inst
Typically Offered:  Occasionally

CURRIC 841 The Educational Role of the Family in Early Childhood Development  Credits: 3
Socialization practices associated with development and education in early childhood; focus on parental teaching practices which influence techniques, communication styles, and cognitive styles within the context of social class and family structure; emphasis on theory, research, and educational applications.  Prereq:  Graduate or professional standing
Typically Offered:  Occasionally

CURRIC 844 Culturally Relevant Pedagogy  Credits: 3
Pedagogy that explores the relationships between culture and learning as well as teacher ideology and beliefs systems. Examines critical pedagogy and pedagogies of resistance.  Prereq:  Grad st
Typically Offered:  Occasionally

CURRIC 855 Issues in Elementary Education  Credits: 3
Critical survey of issues and trends; their social, educational basis; implications for elementary schools; examination and analysis of major problems.  Prereq:  Grad st
Typically Offered:  Occasionally

CURRIC 860 Supervision in Teacher Education  Credits: 1 - 3
For those who are or wish to be university supervisors or cooperating teachers in practicum or student teaching programs. Study and discussion of factors which enter into the supervision of prospective teachers.  Prereq:  Cons inst
Typically Offered:  Occasionally

CURRIC 864 Semiotics for Education  Credits: 1 - 3
This course is dedicated to Semiotics or the study sign action for Education purpose, described as any activity or process including the production of meaning and apprenticeship.  Prereq:  Graduate standing and consent of instructor
Typically Offered:  Fall, Spring, Summer

CURRIC 900 Advanced Seminar in Digital Media  Credits: 2 - 3
Survey and critical analysis of selected research and other literature in the major divisions of the field, with emphasis according to individual interest.  Prereq:  Consent of instructor
Typically Offered:  Occasionally

CURRIC 910 Seminar-Curriculum Development  Credits: 3
Prereq:  Cons inst
Typically Offered:  Occasionally

CURRIC 916 Smr: Special Topics in Research & Evaluation in Curriculum & Instruction  Credits: 3
Prereq:  Cons inst
Typically Offered:  Occasionally
CURRIC 942 Seminar in Research on Mathematics Education Credits: 1 - 3
Selected investigations; design of individual research activities; advanced level. Prereq: Grad st or cons inst
Typically Offered: Occasionally

CURRIC 945 Seminar in Music Education Credits: 2 - 3
Subject differs each semester; comprehensive issues, including current views on topics such as psychology of music; sociology of music; aesthetics. Prereq: Grad st or Spec with tchg exper or cons inst
Typically Offered: Occasionally

CURRIC 946 Past Perspectives on Music Education Credits: 3
Analysis of music education in primary and secondary schools to 1980 via examination of historical, philosophical, and psychological sources. Explores ideas that have shaped the field in the past and investigates the influence of these ideas on current thinking. Prereq: Grad st or Spec with tchg exper or cons inst
Typically Offered: Occasionally

CURRIC 947 Current Issues in Music Education Credits: 3
An exploration of current issues facing music education and an examination of future directions for the field. Students identify and investigate topics affecting them and their schools. Prereq: Grad st or cons inst
Typically Offered: Occasionally

CURRIC 948 Diversity Issues in Music Teaching Credits: 3
A critical analysis of music teaching discourse and practice; focuses on selected issues pertaining to gender, race, sexuality, and ability/disability. Prereq: Grad st or cons inst
Typically Offered: Occasionally

CURRIC 949 Seminar in the Study of Teacher Education: Professional Development Credits: 3
Examination of issues in, and approaches to, design, implementation, and evaluation of professional development for inservice teachers. Prereq: Grad st or cons inst
Typically Offered: Occasionally

CURRIC 950 Seminar in the Study of Teacher Education Credits: 3
Examination of issues related to preservice teacher education and teacher education reform. Prereq: Grad st & cons inst
Typically Offered: Occasionally

CURRIC 951 Seminar in Art Education Credits: 3
Examination and analysis of ideas and studies in art education and related areas preparatory to formulating research problems. Prereq: Grad st & cons inst
Typically Offered: Occasionally

CURRIC 955 Seminar in Advanced Values and Character Education Credits: 3
Pedagogical, psychological, and research issues associated with current approaches to values and moral education. Primary focus is on these issues as they relate to curriculum and instruction in public schools. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CURRIC 960 Seminar-Science Education Credits: 1 - 3
Research methods in improving instruction in elementary and secondary science education. Prereq: Grad st and cons inst
Typically Offered: Occasionally

CURRIC 963 Seminar-Educational Planning & Curric Change-Developing Countries Credits: 3
Analyses and critiques of educational plans related to the social, political, economic, and educational contexts of the target countries. Supervised practice in planning curricular change and educational reforms for particular countries in the light of realistic requirements and constraints. Prereq: Grad st & Curric/Ed Pol 640 or Ed Pol 340 or Ed Admin 875 or cons inst
Typically Offered: Occasionally

CURRIC 964 Seminar in World Language Education Credits: 1 - 3
Seminar intended to help graduate students in World Language Education, Second Language Acquisition, and any language area develop a review of literature and a research project. Prereq: Graduate standing and consent of instructor
Typically Offered: Fall, Spring, Summer
CURRIC 975 General Seminar  Credits: 2 - 3
For the exploration of new frontiers.  Prereq:  Cons inst & Grad st
Typically Offered: Occasionally

CURRIC 976 Seminar in Reading  Credits: 2 - 3
Series of advanced seminars on such topics as: diagnostic and remedial teaching; sociology of reading;
developmental reading; linguistics in the teaching of reading; or others as designated.  Prereq:  Curric 500 or 503
or cons inst
Typically Offered: Occasionally

CURRIC 990 Research or Thesis  Credits: 1 - 12
Prereq:  Grad st and cons inst
Typically Offered: Occasionally

CURRIC 991 Post-Secondary Teaching Practicum  Credits: 3
Opportunity for students to gain an understanding about the design and instruction of teacher education courses.
Prereq:  Open only to Curriculum and Instruction doctoral students.
Typically Offered: Fall, Spring

CURRIC 999 Independent Reading  Credits: 1 - 3
For the benefit of superior graduate students unable to secure needed content in regular courses.  Prereq:  Grad
st and cons inst
Typically Offered: Occasionally

DANCE

DANCE 1 Workshop in Dance Activity  Credits: 1 - 2
Prereq:  Prereq varies according to topic
Typically Offered: Occasionally

DANCE 2 Ballroom Dance I  Credits: 1
Prereq:  Open to Freshmen
Typically Offered: Fall, Spring

DANCE 3 Ballroom Dance II  Credits: 1
Prereq:  Dance 002 or consent of instructor.  Open to Freshmen
Typically Offered: Fall, Spring

DANCE 4 Modern Jazz Dance  Credits: 1
Prereq:  Open to Freshmen
Typically Offered: Fall, Spring

DANCE 5 Modern Jazz Dance II  Credits: 1
Prereq:  Dance 004 or consent of instructor.  Open to Freshmen
Typically Offered: Fall, Spring

DANCE 11 Contemporary Dance I  Credits: 1
Prereq:  Consent of instructor.  Open to Freshmen
Typically Offered: Occasionally

DANCE 12 Contemporary Dance II  Credits: 1
Prereq:  Contemporary Dance I or consent of instructor.  Open to Freshmen.
Typically Offered: Occasionally

DANCE 13 Contemporary Dance III  Credits: 1
Prereq:  Contemporary Dance II, consent of instructor.  Open to Freshmen
Typically Offered: Occasionally

DANCE 21 Ballet I  Credits: 1
Prereq:  Open to Fr
Typically Offered: Occasionally
DANCE 22 Ballet II Credits: 1
Prereq: Dance 021 or cons inst. Open to Fr
Typically Offered: Occasionally

DANCE 56 Movement Improvisation Credits: 1
Introductory level exploration of movement improvisation. Prereq: None
Typically Offered: Fall, Spring, Summer

DANCE 100 Understanding Dance Credits: 1
Understanding Dance is an introductory course that builds understanding and appreciation for the field of Dance. This course delves into dance and its many facets, integrating, theoretical, historical, and embodied learning through viewing, reading, reflecting, discussing and finally, creating. The course will develop students as informed audience members and encourage relevance to other disciplines. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

DANCE 111 Contemporary Dance Technique and Theory I Credits: 1 - 3
Level I Core course in technique. Study and practice of the fundamental principles of contemporary dance technique and theory. Exploration of the body as a creative and expressive instrument. Audition at first class meeting determines course eligibility and placement. Prereq: Previous dance training. Open to Freshmen
Typically Offered: Fall

DANCE 112 Contemporary Dance Technique and Theory II Credits: 1 - 3
Level I Core course in technique. Study and practice of the fundamental principles of contemporary dance technique and theory. Exploration of the body as a creative and expressive instrument. Audition at first class meeting determines course eligibility and placement. Prereq: Previous dance training. Open to Freshmen
Typically Offered: Spring

DANCE 116 Workshop in World Dance Credits: 2
An experiential lecture/lab exploration in different traditional or folk dance forms from around the world. Prereq: None
Typically Offered: Fall, Spring, Summer

DANCE 118 African Dance Credits: 1
Technique and practice of several basic African dance forms with study of their musical, historical and cultural contexts. Prereq: Open to Freshmen
Typically Offered: Fall, Spring

DANCE 121 Asian American Movement Credits: 3
Techniques of exercises and movement forms derived from several Asian cultures as taught in the United States. Studied in the context of the construction and expression of ethnic and cultural identity. Prereq: Open to Freshmen
Ethnic Studies: Yes L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

DANCE 125 Ballet Technique I Credits: 1 - 2
Introduction to basic skills and terminology; includes barrework, center work, petit allegro, grand allegro; focus on form, kinesthetic principles and aesthetic values. Prereq: Beginner level. Open to Freshmen
Typically Offered: Fall

DANCE 126 Ballet Technique I-B Credits: 1 - 2
Level I Core continued expanding terminology, further developing barre work, center work, petit allegro, grand allegro; focus on form, kinesthetic principles and aesthetic values. Prereq: Dance 125. Open to Freshmen
Typically Offered: Spring

DANCE 131 Somatic Theory and Practices Credits: 2
Integration of body and mind is explored through various somatic practices. Prereq: Open to Freshmen
Typically Offered: Spring
**DANCE 132 Workshop in Body Studies and Practices** Credits: 1
This course is a laboratory in mind-body practice. When offered, the course title will reflect the type of body practices or modalities covered. Each specific practice will focus on increased bodily awareness and function for the performing artist. The class will include movement practices, readings, discussion, writing assignments, videos and performances/lectures. Prereq: None
Typically Offered: Fall, Spring, Summer

**DANCE 135 Pilates Mat I** Credits: 1
Pilates is a physical conditioning program that creates balance, improves posture, decompresses joints and creates elongated, toned muscles. The exercises focus on core strength, breath, and a flexible spine. Pilates Mat I will teach students the Level I-III Mat exercises. Students explore functional anatomy and imagery-based alignment. Prereq: None
Typically Offered: Fall, Spring, Summer

**DANCE 136 Pilates Equipment Lab I** Credits: 1
Pilates Equipment Lab I will focus on learning Level I & II (Lab I) exercises on the Pilates equipment, which includes the Reformer, Cadillac, Low Chair, and High Barrel. Prereq: None
Typically Offered: Fall, Spring, Summer

**DANCE 140 Dance Production** Credits: 2
Introduction to design and production for the performing arts with emphasis on dance. Students learn use of lighting, sound and other scenographic elements in theory and with practical experience. Prereq: Open to Freshmen
Typically Offered: Fall, Spring

**DANCE 144 Rhythmic Training for Dancers** Credits: 2
The study of rhythmic theory to educate dancers about musical time and structure. Basic notation, aural comprehension of rhythm, and rhythm activities are emphasized. Prereq: Dance major or consent of instructor; Open to Freshmen
Typically Offered: Fall

**DANCE 152 Dance Performance Workshop** Credits: 1
Practice and experience in performing for student in the early stages of development. Prereq: Dance 111, 112 or consent of instructor
Typically Offered: Occasionally

**DANCE 156 Movement as Material Through Improvisation** Credits: 2
Use of improvisation to develop a personal movement vocabulary and explore compositional form. Prereq: Dance 002, Dance major or minor, certificate or consent or instructor
Typically Offered: Fall

**DANCE 157 Introduction to Movement Analysis** Credits: 2
An examination of the qualitative variations in movement processes as they relate to human function and expression. Prereq: None
Typically Offered: Fall

**DANCE 159 Collaborative Arts Workshop** Credits: 2
Collaborative Arts Workshop focuses on sharing ideas by creating dance and theatre through a collaborative process. The course will expose students to a range of artistic disciplines with the focus of collaboratively developing a concert program projected through the lens of hip hop theatre. Students will engage in various art disciplines to develop interdisciplinary tools through a collaborative process that will strengthen and teach creative problem solving skills. Prereq: By audition
Typically Offered: Fall, Spring, Summer

**DANCE 162 First Year Workshop** Credits: 1
This course, designed for incoming dance majors, introduces students to the world of contemporary dance, and covers topics in contemporary dance performance and professionalism. Prereq: Dance major standing or consent of instructor
Typically Offered: Fall, Spring, Summer
DANCE 165 World Dance Cultures: Traditional to Contemporary Credits: 3
A survey course providing students with a framework for understanding and appreciating the significance of dance in and as human culture. The course includes reading assignments, lecture, video and studio practice as opportunity to physically experience material discussed. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

DANCE 168 Dancing Gender: Embodiment, Politics and Feminist Theory Credits: 3
Gender theories and feminist theories focus on the body as the main site where gender distinctions are understood. As the body holds a central position in the art of dance and the academic discipline of dance studies, this course explores gender and feminist theories through the lens of dance. Drawing on a wide array of examples and dance genres ranging from across the globe (such as Ballroom, Bollywood, Folk Dance, Ballet and more) This course introduces students to the cultural specificity of gender norms and the ways that dance has the potential to challenge heteronormativity through performance. The course is introductory, no prior experience in dance, gender studies, or women's studies
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

DANCE 200 Writing the Moving Body Credits: 3
Examines performance texts from the 20th century to the present, and applies them through written analyses. Prereq: Open to Freshmen
General Education: COM B  Typically Offered: Fall

DANCE 205 Dance Credits: 1 - 4
Introduction to basic elements of modern, jazz and ballet dance forms; emphasis on dance in the physical education curriculum. Prereq: PE majors. Open to Fr
Typically Offered: Spring

DANCE 211 Contemporary Dance Technique and Theory III Credits: 1 - 3
Continuation of 111 and 112. Exploration of dance dynamics and quality through improvisation and the practice of set dance sequences. Prereq: Advanced beginner/Intermediate level. Open to Freshmen
Typically Offered: Fall, Spring

DANCE 212 Contemporary Dance Technique and Theory IV Credits: 1 - 3
Continuation of 211. Further development of skills. Development of dance phrases and movement vocabulary for invention. Prereq: Advanced beginner/Intermediate level. Open to Freshmen
Typically Offered: Fall, Spring

DANCE 213 New Movement Techniques Credits: 1 - 2
Exploration of new movement techniques in dance outside of traditional forms and methods. Prereq: Intermed level mod technique or consent of instructor. Open to Freshmen
Typically Offered: Spring

DANCE 218 African Dance Performance Credits: 2
Technique, practice and performance of complex African and African-based dances in relation to polyrhythmic musical and percussive accompaniment. Study of historical and cultural contexts of these forms. Development of improvisational skills in dialogue with musicians. Prereq: Dance 118 or consent of instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

DANCE 225 Ballet Technique II Credits: 1 - 2
Emphasis on basic skills; barrework, center work, petit and grand allegro, adagio, and increased use of demi-pointe. Focus on form, kinesthetic principles and aesthetic values. Prereq: Advanced beginner/Intermediate level. Open to Freshmen
Typically Offered: Fall

DANCE 226 Ballet Technique II-B Credits: 1 - 2
Level II Core continued expanding terminology, further developing barre work, center work, petit allegro, grand allegro; focus on form, kinesthetic principles and aesthetic values. Prereq: Dance 225. Open to Freshmen
Typically Offered: Spring

DANCE 231 Introduction to Dance/Movement Therapy Credits: 2
Orientation to the scope of dance therapy as a profession. Historical framework, theoretical rationale, and present application of dance/movement therapy. Prereq: So st & cons inst
Typically Offered: Spring
DANCE 232 Introduction to Dynamics of Dance Therapy Credits: 2
Fieldwork in community programs. Prereq: Dance 231 & cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

DANCE 235 Pilates Mat II Credits: 1
Pilates Mat II is a continuation of Pilates Mat I and will teach students the intermediate to advanced level mat exercises, which continue to focus on core strength, breath and spinal flexibility while challenging upper body strength, range of motion in the hips and spine, spinal extension and inverted balance. Prereq: Dance 135 or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 236 Pilates Equipment II Credits: 1
Pilates Equipment Lab II will focus on learning Level III (Lab II) exercises on the Pilates equipment, which includes the Reformer, Cadillac, Low Chair, and High Barrel. Prereq: Dance 136 or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 237 Pilates Studio I Credits: 3
Pilates Studio I is designed to give students experience in teaching Pilates, which includes private, semi-private, and small group sessions. Classes give student-teachers class structure formats, including an understanding of the instructor to student relationship, pacing of class sessions, and the physical detail with which Pilates is taught. Prereq: Dance 135; Dance 136; Dance 236; or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 240 Dance Production Laboratory Credits: 1
Gives the students hands on experience working with the technical aspects of dance program performances. Prereq: Dance 140 or consent of instructor
Typically Offered: Fall, Spring

DANCE 241 Music Fundamentals for Dancers Credits: 3
Study of the elements of music and their relationship to movement, a history of contemporary music and modern dance and an introduction to digital audio applications for choreography. Prereq: Music 111, Music 151, or consent of instructor
Typically Offered: Occasionally

DANCE 255 Movement Composition for the Performing and Visual Arts Credits: 2
Basic principles of solo composition explored and applied to movement in visual and performing arts. Prereq: Dance 151. Not open to Freshmen
Typically Offered: Spring

DANCE 259 Collaborative Arts Performance Lab: Devising Collaborative Performance through Hip Hop Arts Credits: 1 - 2
Collaborative Arts Performance Lab is a unique course where students work together to create a repertory company which produces performances of short hip hop theater and other collaborative performance art works for public viewing. It is a creative workshop space where experimental works are researched and developed. These workshops are open to all First Wave students, including Freshmen, and will involve the development of collaborative and small group pieces as well as artistic training with a focus on individual and multi-voice work, theater improvisation, dance/movement. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

DANCE 265 Dance History I: Dance Art from the Renaissance to the 1950's Credits: 3
An overview of the history of Western dance art from the Renaissance to the high-modern era with emphasis on the development of European ballet and American modern dance. Prereq: Open to Freshmen
Typically Offered: Spring

DANCE 268 Political and Cultural Perspectives in Dance Studies Credits: 3
Examines the role of dance as a cultural form of expression within the political sphere. It draws on a variety of case studies ranging from popular dance TV shows, to European modern dance and from hip-hop to dancing at public protests and asks the question of what constitutes dance and what is its social and political function. Intermediate level, no prior dance experience required. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
DANCE 311 Contemporary Dance Technique and Theory V Credits: 1 - 3
Level III. Contemporary dance technique and theory on the intermediate level. Emphasis on movement skills employing proper body alignment. 311 Prereq: Intermediate/Advanced level. Open to Freshmen
Typically Offered: Fall

DANCE 312 Contemporary Dance Technique and Theory VI Credits: 1 - 3
Continuation of 311 Prereq: Intermediate/Advanced level. Open to Freshmen
Typically Offered: Spring

DANCE 318 Cultural Cross Currents: West African Dance/Music in the Americas Credits: 3
The influence of traditional West African dance/music heritage in historical, artistic, social contexts in the development of new hybrid forms of music/dance created by cross-pollination of cultures of Africans, Europeans and indigenous peoples in the New World. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DANCE 321 Javanese Performance Credits: 2
Technique and practice of classical Javanese dance in its musical, historical and cultural contexts. Prereq: Junior standing or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

DANCE 325 Ballet Technique III Credits: 1 - 2
Intermediate: barrework, center work, petit and grand allegro, adagio, demi-pointe, and more complex combinations and skills. Focus on form, kinesthetic principles, and aesthetic values. Prereq: Intermediate/Advanced level. Open to Freshmen
Typically Offered: Fall, Spring

DANCE 326 Ballet Technique III-B Credits: 1 - 2
Intermediate level continued: barrework, center work, petit and grand allegro, adagio, demi-pointe, and more complex combinations and skills. Focus on form, kinesthetic principles, and aesthetic values. Prereq: Intermediate/Advanced level. Open to Freshmen
Typically Offered: Fall, Spring, Summer

DANCE 330 Functional Anatomy for Movement Practices Credits: 1
Functional Anatomy for Movement Practices provides students with an understanding of functional anatomy in kinetic terms. Class will explore efficient musculoskeletal function as it relates to pedestrian movement and vigorous movement. Students will learn how to see and feel the difference between healthy movement and movement pathology. Prereq: Dance 135; Dance 136; Dance 131; or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 331 Dynamics of Dance Therapy Credits: 3
Movement lab integrating theory and techniques of dance therapy. Field work in community service projects. Prereq: Intro crse in dance/movement therapy and/or Jr st and cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DANCE 336 Pilates Equipment Lab III Credits: 2
Pilates Equipment Lab III covers the Intermediate to Advanced exercises (Level IV and V) on all equipment. The Level IV/V exercises challenge a body's uniform development, range of motion in all actions of the spine, hips and shoulders, and require great control and balance. These exercises are great cross-training for athletes, dancers or Pilates enthusiasts who wish to feel the advanced movement potential of their own bodies. Prereq: Dance 236 or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 337 Pilates Studio II Credits: 3
Class will cover the Pilates Level IV-V (Intermediate-Advanced) material on the equipment and continues work from Dance 237: Pilates Studio I. Prereq: Dance 235, Dance 237 and Dance 336 or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 341 Sound Design for the Performing and Visual Arts Credits: 3
Production of audio soundtracks to complement the work of artists. The relationship of sound and music to dance, video, film, computer art, and other interdisciplinary forms. Prereq: Art, Dance or Com Arts major or consent of instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
DANCE 345 Video Design for the Performing and Visual Arts Credits: 3
Provides technical and aesthetic knowledge of the use of video camera and editing techniques; introduction to digital video; relationship of video to the performing and visual arts. Prereq: Dance major, Dance 255 or consent of instructor
Typically Offered: Occasionally

DANCE 355 Dance Composition II Credits: 2
Composition and performance of dances based on pre-classic and modern dance forms to include practical application of theater production, costuming, and stage design. Prereq: Dance 255
Typically Offered: Occasionally

DANCE 360 Current Topics in Dance Credits: 1 - 3
A special topics course that addresses various areas in the field. Prereq: None
Typically Offered: Fall, Spring

DANCE 365 Dance History II: Directions and Issues of Contemporary Dance Credits: 3
Surveys dance history from the 1960's to the present. Through research, video viewing, and discussions, students grasp aesthetic ideas of modern dance; contextualize the major components of contemporary dance; and characterize trends and styles relative to underlying philosophies. Prereq: Dance 265
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

DANCE 371 Creative Dance for Children Credits: 3
Sensitization of the potential teacher to the movement needs of the child; activities for elementary level with emphasis on movement structures which allow child's own responses; readings, observation, and practice teaching. Prereq: Dance 151, 167 or cons inst
Typically Offered: Occasionally

DANCE 372 Teaching of Dance to Adults Credits: 3
Theory and practice. Student participation in the teaching of movement as a creative dance experience. Prereq: Dance 161, 167, 255
Typically Offered: Occasionally

DANCE 374 Teaching Dance Credits: 3
Teaching Dance is designed to provide methods and materials for appropriate dance instruction in the public and private sectors for an array of ages. The course advocates for Dance Education in both public and private settings and emphasizes the value of Dance in enhancing the quality of life for all people. Prereq: Dance 131, Dance 157 and Dance 255 or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 375 Pilates Teaching Methods Credits: 1
Pilates Teaching Methods is designed to give student an understanding of the practice of teaching and learning Pilates. Students develop understanding of body mechanics as well as an appreciation of the variety of movement possibilities and compensatory patterns present in individual bodies. Class will consist of lecture, discussion, practice teaching and mentorship as students begin the process of teaching Pilates. Prereq: Dance 135 or consent of instructor
Typically Offered: Fall, Spring, Summer

DANCE 376 Pilates Teaching I Credits: 3
Pilates Teaching I students complete a minimum of 3 hours of teaching per week (or equivalent) working with individuals and/or group classes. Pilates Teaching I candidates will teach Level I-III work. Students will also attend periodic seminars and mentor meetings. Prereq: Pilates Certificate Candidate; Dance 135; Dance 136; Dance 236; Dance 237; and Dance 375
Typically Offered: Fall, Spring, Summer

DANCE 399 Independent Project Credits: 1 - 3
Prereq: So st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

DANCE 411 Contemporary Dance Technique and Theory VII Credits: 1 - 3
Level IV. Advanced level. A wide range of movement experiences emphasizing increasing complexity of design and rhythmic structure. 411 Prereq: Advanced level. Open to Freshmen
Typically Offered: Occasionally
DANCE 412 Contemporary Dance Technique and Theory VIII Credits: 1 - 3
Continuation of 411 Prereq: Advanced level. Open to Freshmen
Typically Offered: Occasionally

DANCE 421 Javanese Performance Repertory Credits: 2
Introduction to Javanese theatre performance in a Javanese epic tradition. Includes use of Javanese gamelan music as accompaniment for dance drama. Prereq: None
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

DANCE 425 Ballet Technique IV Credits: 1 - 2
Intermediate/advanced: pirouettes in large poses, combinations of turning and jumping, extended and varied combinations. Increased focus on the development of artistic expression and musicality. Prereq: Intermediate/Advanced level. Open to Freshmen
Typically Offered: Fall

DANCE 431 Dance Therapy Practicum Credits: 3
One semester supervised experience in psychiatric setting, i.e., special school, hospital, or community mental health center, and one semester of independent study. Prereq: Dance 332, Senior st and consent of instructor
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DANCE 441 Advanced Sound Design Credits: 3
Advanced instruction in the production of sound tracks to complement the work of artists in dance, video, film, computer art and other interdisciplinary forms. Prereq: Dance/Art 341
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DANCE 451 Dance Repertory Theater Credits: 1 - 3
Study of choreography created by member of the faculty and guest artists, leading to public performance. Prereq: Audition at first class meeting. Must take a majors level (100 or higher) modern or ballet technique course concurrently. Open to Freshmen
Typically Offered: Fall

DANCE 452 Dance Repertory Theater Credits: 1 - 3
Study of choreography created by member of the faculty and guest artists, leading to public performance. Prereq: Audition at first class meeting. Must take a majors level (100 or higher) modern or ballet technique course concurrently. Open to Freshmen
Typically Offered: Spring

DANCE 455 Dance Composition III Credits: 2
Principles of organization in group composition. Planning, composing and presenting of group dances. Prereq: Dance 255
Typically Offered: Occasionally

DANCE 462 Senior Seminar Credits: 3
This course, designed for dance seniors, enables students to reflect on the entirety of their dance coursework, to develop their own current work in performance and dance scholarship, and to prepare for future engagement with the discipline outside the university. Prereq: Senior st & Dance 355 & 365
Typically Offered: Fall, Spring

DANCE 463 Senior Project Credits: 1 - 2
This is a capstone course that focuses on artistic and scholarly senior dance projects such as choreography, performance, pedagogy, research studies, papers, and articles. Prereq: Senior standing & Dance 355 and 365
Typically Offered: Fall, Spring, Summer

DANCE 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
Typically Offered: Occasionally
DANCE 476 Pilates Teaching II Credits: 3
Pilates Certificate student teachers (ST) will complete a minimum of 3 hours of teaching per week (or equivalent) working with individuals one on one or with group classes. Student Teaching II candidates are expected to cover all Pilates work Level I-V. Students will also attend weekly seminars and mentor meetings. Prereq: Pilates Certificate Candidate, Dance 235; Dance 336; Dance 337; Dance 330; and Dance 376
Typically Offered: Fall, Spring, Summer

DANCE 560 Current Topics in Dance: Workshop Credits: 1 - 3
Prereq: Prereq varies according to topic
Typically Offered: Occasionally

DANCE 699 Independent Project Credits: 0 - 3
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ED LEADERSHIP & POLICY ANALYSIS

ELPA 350 Peer Leadership and Mentorship with Transitioning Students Credits: 1
Examines student development in the first college year and strategies upper class students can utilize to be effective leaders and mentors of new students. Course textbook provides foundation for discussion, writing, and experimental assignments. Prereq > Open to sophomores and above
Typically Offered: Fall, Spring

ELPA 502 Workshop in Educational Leadership and Policy Analysis Credits: 1 - 3
Practical problems derived from student interests and needs; not applicable to the doctoral program; may be repeated. Prereq: Jr st
Typically Offered: Fall, Spring, Summer

ELPA 541 Organization and Administration of School Health Programs Credits: 3
Theory, philosophy, patterns, and responsibilities. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

ELPA 600 Cooperative Program Off-campus Term Credits: 0
Course for participants in M.S. cooperative program to maintain UW-Madison status during terms when taking courses from partner institution. Prereq: Admission to M.S. cooperative program
Typically Offered: Occasionally

ELPA 640 Legal Rights and Responsibilities for Teachers Credits: 1 - 3
This course will examine the legal issues confronting the classroom teacher on a daily basis. Students will learn how law impacts both curriculum development and curricular delivery. An emphasis will be placed on understanding legal analysis in order to empower teachers to better balance the multiple interests confronting them. Students will also learn how an understanding of law can further the development of a democratic classroom. Specific topics to be examined include: curricular control, teachers' academic freedom, religion in the curriculum, equity in programming, special education, student records, student discipline, teacher contracts, teacher discipline, and negligence. Prereq: Gr
Typically Offered: Spring, Summer

ELPA 660 Foundations of Education for Work Credits: 2 - 3
Analysis of perspectives and issues associated with the development of work-focused education policies and practice. Prereq: Senior standing
Typically Offered: Occasionally

ELPA 661 Organization and Operation of Education for Work Programs Credits: 3
Procedures, policies and research associated with various systems of work-related education. This course is intended for students who have teaching experience. Prereq: Senior standing
Typically Offered: Occasionally
ELPA 665 Career Development Throughout the Life Span Credits: 3
For educators and students preparing for teaching, counseling, and administrative positions. Relationships among education, work and life style as well as factors influencing individual career development; rationale for career education and application of Wisconsin and other state models; strategies for development and evaluation of career education/ career guidance programs and activities. Prereq: Jr st
Typically Offered: Fall, Summer

ELPA 700 Field Experience in Educational Leadership Credits: 3
Supervised field experience: elementary, secondary, vocational, technical, higher, and/or special education at local, state, or national level. Prereq: Consent of instructor
Typically Offered: Occasionally

ELPA 701 Introduction to Higher and Post-Secondary Education Credits: 3
Examines the history and philosophy of higher and postsecondary education; the major participants; curriculum; governance and leadership; relations with state and federal government; and current issues. Prereq: Grad st
Typically Offered: Occasionally

ELPA 702 Introduction to Educational Leadership Credits: 3
Integration of research, theory, and standards of practice for effective leadership in contemporary educational organizations. Prereq: Grad standing
Typically Offered: Occasionally

ELPA 703 Evaluating and Supporting Quality Classroom Teaching Credits: 3
Enables school leaders to evaluate teaching practice and to recognize and support quality classroom teaching in K-12 classrooms. Students will apply established evaluation frameworks to video cases of classroom practice. Topics will include a review of supervision and evaluation theories, basics of video production, and the link between evaluation practices and professional development. Prereq: Grad st, ELPA 702 or con reg
Typically Offered: Occasionally

ELPA 710 Introduction to Intercollegiate Athletics Administration Credits: 3
Examines the administration of intercollegiate athletics in higher education institutions with particular emphasis on providing practical and theoretical approaches. Concepts will be addressed by the practical experiences of guest lecturers and through content-specific knowledge about the intercollegiate athletics research-based literature. Prereq: Cons inst
Typically Offered: Spring

ELPA 715 Governance and Administration of Colleges and Universities Credits: 3
Functions organization, and administrative practices of colleges and universities; role of governing boards, administrators, faculty members, and students in policy making. Prereq: Grad st
Typically Offered: Occasionally

ELPA 719 Introduction to Qualitative Research Credits: 3
Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prereq: Grad st
Typically Offered: Occasionally

ELPA 725 Research Methods and Procedures in Educational Administration Credits: 3
Introduction to the research process. Role of theory and hypothesis testing in research. Introduction to research problems, questions, hypotheses, variables, constructs, definitions, measurement, research and experimental designs, sampling, descriptive statistics, proposal writing, types of research and statistical computing. Critical analysis of published research. Prereq: Grad st
Typically Offered: Occasionally

ELPA 726 Data-Based Decision-Making for Educational Leadership Credits: 3
Prepares educational leaders to engage in data-driven decision making from a system-wide perspective. A second objective is to provide students with basic data analysis skills they can use in their graduate studies. Prereq: Grad standing
Typically Offered: Occasionally
ELPA 730 Program Development in Continuing Education  Credits: 3
Basic concepts related to effective program development. Focus on the concepts relevant to programming with adults: (1) philosophical basis for change through adult education programs, (2) programming processes, (3) community and clientele analysis, (4) program involvement, (5) program design. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ELPA 735 Leadership for Equity and Diversity  Credits: 3
Coordinating and effective utilization of school-based special services in the context of student diversity with attention to values, theory, and research underlying curriculum, instruction and policy, in terms of social class, gender, sexual orientation, disability, and race. Prereq: Grad standing
Typically Offered: Occasionally

ELPA 736 Administration of Student Services in Higher Education  Credits: 3
Organization and administration of student services in higher education including philosophy, current issues, student development, program planning, financial aid, auxiliary services, housing, counseling, advising, social and health services, student organizations, legal aspects, and special populations. Prereq: Grad st
Typically Offered: Occasionally

ELPA 742 Facilitating Learning for Adults  Credits: 3
Analysis of concepts and procedures for helping adults learn. Emphasis on the teaching-learning transactions that encourage and assist adults in their learning activities. Prereq: ELPA 746
Typically Offered: Occasionally

ELPA 746 The Adult Learner: Implications for Curriculum and Instruction  Credits: 3
Analysis of the principles and instructional models applicable to the instruction of adults. Attention to the integration of research on learning and teaching in informal and formal educational settings. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ELPA 748 Proseminar: Issues & Problems in Teaching-Learning in Adult Educ  Credits: 3
A planned, systematic analysis of basic issues; instructional group strategies, instructional modes, independent learning, etc. Prereq: Cons inst
Typically Offered: Occasionally

ELPA 765 Issues in Educational Policy Analysis  Credits: 3
Theory, research, and practical experience in educational policy analysis, including the social construction of policy problems in education; the design, implementation, and evaluation of policy responses; and the practical and ethical dilemmas of the policy analyst. Prereq: Grad st or cons inst
L&S Level: Advanced  Typically Offered: Occasionally

ELPA 770 School-Community Engagement  Credits: 3
Critical examination of school-community engagement and collaboration. Examines theory and practice of mutually beneficial collaboration in diverse education settings, including leadership issues in collaborative settings, and facilitators and inhibitors to effective collaboration. Prereq: ELPA 702
Typically Offered: Occasionally

ELPA 777 Higher and Post-Secondary Education Capstone Seminar  Credits: 3
This capstone seminar is designed to provide students with an opportunity to use concepts and theories learned in previous coursework to analyze professional issues facing higher education administrators. The goal of the course is to assist students with career transitions and provide a culminating experience for the master’s program. Prereq: ELPA 701 and consent of instructor
Typically Offered: Spring

ELPA 780 Teacher Leadership and Learning Communities  Credits: 3 - 4
Focuses on knowledge and skills teachers need to be leaders in their schools in facilitating the development of strong learning communities that include students, teachers, families, administrators, and other educators. Main objectives are to help students understand key concepts, theories, and models used in building and sustaining effective learning communities; develop skills in creating practices that contribute to effective teacher leadership; and identify and strengthen skills needed to lead schools to build learning communities that promote student learning. Prereq: Enrollment in the Master of Science for Professional Educators program or consent of instructor
Typically Offered: Fall
ELPA 785 Staff Personnel Systems in Education Credits: 3
Personnel systems and collective bargaining processes for professional and nonprofessional staff in education including elementary, secondary, higher and post-secondary education. Prereq: ELPA 702 & 703 or cons inst for ELPA majors; Grad st for other fields
Typically Offered: Occasionally

ELPA 788 Qualitative Research Methods in Education: Field Methods I Credits: 3
Introductory field methods experience in qualitative research. Students will learn to define good research questions, determine which methods of data collection and analysis are useful for addressing those questions, engage in these methods, reflect on their utility in education research. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 719 or cons inst
Typically Offered: Spring

ELPA 789 Qualitative Research Methods in Education: Field Methods II Credits: 3
Focus on data analysis and translation of finds and implications. Students will gain theoretical and practical knowledge and skills regarding coding and analysis techniques, use of qualitative analytic tools, strategies for sharing findings with audiences beyond research team. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 788
Typically Offered: Spring

ELPA 795 Economics of Education Credits: 3
Shows how basic economic concepts are applied to the study of education policy and what economic research has concluded about the efficiency of various types of education systems. Prereq: Grad st
Typically Offered: Occasionally

ELPA 810 Doctoral Inquiry in Educational Leadership and Policy Analysis Credits: 3
Introduction to inquiry in the field of educational leadership and policy analysis for first semester doctoral students. Provides an introduction to research through engagement with ideas, including identifying and crystallizing meaningful problems, fundamentals of research design, and key challenges in conducting disciplined inquiry. Prereq: Admission to ELPA Doctoral program
Typically Offered: Fall

ELPA 812 Leadership and Coordination of Continuing and Technical Education Credits: 3
Theory, research, concepts, and processes of leadership and program coordination integral to various continuing and technical education programs. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ELPA 815 Problems in College and University Administration Credits: 3
Theory and research applied to the study of policy issues and problems in college and university administration. Prereq: ELPA 715
Typically Offered: Occasionally

ELPA 817 Reflective Practice in Higher, Postsecondary and Continuing Education Credits: 3
Current educational philosophies. Each student develops an adult educational philosophy. Prereq: Cons inst
Typically Offered: Occasionally

ELPA 822 Introduction to Quantitative Inquiry in Education Credits: 3
Prepares doctoral students to use the concepts and methods of quantitative social science research to conduct research on education issues. Topics include hypothesis testing, statistical inference, point estimates, graphic and numerical data displays, correlation and regression. Prereq: Graduate standing
Typically Offered: Fall

ELPA 824 Field Research Designs & Methodologies in Educational Administration Credits: 3
This introduction to qualitative inquiry focuses on research design, the major qualitative methods and techniques used in field research, data analysis, communicating field research, ethical challenges, and trustworthiness in conducting qualitative research. Prereq: ELPA 725 or cons inst
Typically Offered: Occasionally
ELPA 825  Advanced Research Methods in Educational Administration  Credits: 3
Research designs for problems in educational administration including role of theory and hypothesis testing; variable definition and measurement; correlational, survey, experimental and non-experimental, factorial and single-subject designs. Prereq: Ed Psych 761 or Stat 301 or Soc 361 or ELPA 824 or Ed Pol 720; or cons inst
Typically Offered: Occasionally

ELPA 826  Evaluation for Administrative Decision Making in Education  Credits: 3
Theory and methods of evaluation for administrators. Models and techniques related to educational needs assessment, program and product development, formative and summative evaluation. Use of evaluative information for administrative decision making and administration of educational evaluation projects. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ELPA 827  Surveys and Other Quantitative Data Collection Strategies  Credits: 3
This course examines the methods and concepts of survey research methods as they are commonly used in education research. Strategies include surveys (phone, mail, electronic, in person), logs/diaries, and experience sampling instruments. Emphasis is given to self-administered surveys, including periodic surveys, since these strategies are the most common in education research. Prereq: Graduate standing
Typically Offered: Fall

ELPA 830  School Finance and Resource Allocation  Credits: 3
Contemporary bases for collecting and distributing local, state, and federal funds for elementary and secondary education; problems and issues in financial support of education; current, alternative and more effective uses of educational resources. Prereq: Grad standing
Typically Offered: Occasionally

ELPA 831  Financing Postsecondary Education  Credits: 3
Contemporary bases for collecting and distributing funds for postsecondary education provided by two-year institutions, colleges and universities; problems and issues in financing postsecondary institutions; economic aspects of expenditures for postsecondary education. Prereq: Grad st
Typically Offered: Occasionally

ELPA 835  Leadership for Inclusive Schooling  Credits: 3
Examines historical and organizational context of special education administration at the federal, state and local levels. Includes policy implementation, constituency management, coordination, communication, and current issues. Prereq: ELPA 702 & 735
Typically Offered: Occasionally

ELPA 840  Public School Law  Credits: 3
Legal aspects of public K-12 education. Legal structure; employee rights; employee discipline; curriculum; students' rights; student discipline, special education; torts; contracts, religion. Impact of federal and state constitutions, statutes, and court decisions on education. Prereq: Grad standing
Typically Offered: Occasionally

ELPA 841  Legal Aspects of Higher Education  Credits: 3
Legal structure of higher education, including historical evolution as well as current legal problems. Attempts to assess the impact of legal decisions, statutes, and regulations upon higher education and to discuss the implications of the interaction of the legal system and university governance for the practicing administrator. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ELPA 842  Legal Foundations of Special Education and Pupil Services  Credits: 3
Legal requirements and issues relative to special education and pupil services programs; special education, juvenile justice, programs for English language learners, programs for children who are homeless; examination of applicable federal and state statutes and case law. Prereq: ELPA 840 or equiv
Typically Offered: Occasionally

ELPA 844  Technology and School Leadership  Credits: 3
Investigates how school leaders develop and use technological tools and systems to improve student learning and effect change in schools. Prereq: Graduate standing
Typically Offered: Occasionally
ELPA 845 School-Level Leadership Credits: 3
Dimensions of school-level leadership includes a focus on dimensions of the principal’s leadership role, leadership tasks needed to advance equity and excellence in student learning, and distributed leadership. Prereq: ELPA 702 or consent of instructor
Typically Offered: Occasionally

ELPA 846 The School Superintendency Credits: 3
The course focus is systematic leadership for equity in learning. Investigation of leadership and political theories, professional competencies, and the personal commitment involved in the role of the school superintendent. Covers the evolution of theoretical and practical perspectives of the school superintendency, including internship experiences. Prereq: ELPA 702 or cons inst
Typically Offered: Occasionally

ELPA 847 Instructional Leadership and Teacher Capacity Credits: 3
Creating and sustaining successful teaching and learning environments for students and staff is the guiding theme of this course. It is designed to provide teachers, learning specialists, principals, and other administrators with the foundations of research, theory, and best practices of instructional leadership to enhance teachers’ capacity for equity and excellence in student learning. Prereq: ELPA 703 or consent of instructor
Typically Offered: Occasionally

ELPA 848 Professional Development and Organizational Learning Credits: 3
Examines educators’ professional learning in organizations and its contributions to organizational change, learning, and renewal. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ELPA 860 Organizational Theory and Behavior in Education Credits: 3
Theoretical constructs and empirical research relating to administering organizations in education. Emphasis on administrative behavior with special attention to planning and organizational improvement. Prereq: ELPA 702 or cons inst for ELPA majors; Grad st for other fields
Typically Offered: Occasionally

ELPA 863 Race, Class and Educational Inequality Credits: 3
Critically examines race and class inequality in education, including the importance of race and class at multiple levels of analysis, including the classroom and school, as well as the family, neighborhood, and community. Prereq: Graduate or professional standing
Typically Offered: Fall

ELPA 870 The Politics of Education Credits: 3
Policy development in education as a political process; community power, state and national politics in educational decision making; role of leadership and pressure groups, particularly the educational lobbies, in the shaping of educational policy at local, state, and national levels. Prereq: Grad st
Typically Offered: Occasionally

ELPA 872 Educational Policy Research Design and Implementation Credits: 3
A policy research methods course which explores theories and practices relating to the development and implementation of educational policy with attention to matching appropriate policy research designs to policy goals and organizational contexts. Prereq: ELPA 870 or cons inst
Typically Offered: Occasionally

ELPA 875 Theory and Practice of Educational Planning Credits: 3
Theory, research and practice in advanced program planning and evaluation involving elementary, secondary and higher and post-secondary education. Prereq: ELPA 702 or cons inst for ELPA majors. Grad st for other fields
Typically Offered: Occasionally

ELPA 880 Academic Programs in Colleges and Universities Credits: 3
Explores higher education curriculum including academic program philosophy and design, planning and development, program innovations, liberal education, academic majors, graduate and professional education, program review and evaluation. Prereq: ELPA 715
Typically Offered: Occasionally
ELPA 881 Ideas of the University: Images of Higher Learning for the 21st Century Credits: 3
Through engaging a diverse range of voices representing multiple stakeholders, this course explores alternative images and models to guide universities in the twenty-first century. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ELPA 882 Minority-Serving Institutions of Higher Education Credits: 3
Examines the origins, contemporary landscape, structures, and stakeholders of minority-serving institutions (MSIs) -- historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs), and tribal colleges and universities (TCUs) -- including related challenges and opportunities for research and practice. Prereq: Grad st & ELPA 701 or equiv, or cons inst
Typically Offered: Occasionally

ELPA 883 Perspectives on College Student Identity and Development Credits: 3
The aim of this course is to provide an introduction to identity and college student development theory that can either be applied to higher education administration practice or to research in higher education. Prereq: Graduate or professional standing
Typically Offered: Spring

ELPA 886 Internationalization of Higher Education Credits: 3
This seminar offers a close look at issues, trends, and challenges concerning internationalization in higher education in both the U.S. and foreign countries. Course content focuses on internationalizing teaching and learning, international partnerships and collaborations, international student recruitment and advising, study abroad etc. Prereq: Admission to Global Higher Education Master’s Program (GHE) or consent of instructor
Typically Offered: Fall

ELPA 887 Diversity and Inequality in Higher Education Credits: 3
Survey of equity issues related to higher education access, admissions, transitions, persistence, and success. This seminar course focuses on the role of inequities across categories such as race, class, sex, gender, sexual orientation, language, nationality, or religion in higher education alongside considerations as to how researchers and practitioners can better communicate with one another about diversity issues. Prereq: Graduate or professional standing
Typically Offered: Fall

ELPA 888 Assessment in Higher Education Credits: 3
The course presents an overview of the key concepts, tools, and practices of assessment in academic and student services settings. A theoretical and practical basis for choosing, designing and using assessment and evaluation tools will also be provided. Prereq: Graduate standing
Typically Offered: Spring

ELPA 890 Applied Research in Educational Administration Credits: 3
Supervised research on topics in the administration of elementary and secondary education. Course is designed for students seeking the Specialist Certificate. Prereq: ELPA 725 & Ed Psych 760 or equiv
Typically Offered: Occasionally

ELPA 900 Internship in Educational Administration Credits: 3
In administration and other leadership positions in elementary and secondary, vocational, technical, and adult, and higher educational systems or other educational agencies. Prereq: Post-master st, approp advanced cr & cons inst
Typically Offered: Occasionally

ELPA 910 Seminar in Educational Law Credits: 3
Interpretation and critique of legal authority impacting education. Topics may include education and religion, students' rights, teachers' rights, and federal involvement in education. Prereq: ELPA 840 or 841 or equiv
Typically Offered: Occasionally

ELPA 915 Seminar: College and University Administration Credits: 3
Research and discussion on topics in college and university administration. Prereq: ELPA 715 & 825
Typically Offered: Occasionally

ELPA 940 Special Topics Seminar in Educational Leadership Credits: 1 - 3
Research on and/or discussion of selected topics in educational leadership and policy analysis. Prereq: Cons inst
Typically Offered: Occasionally
ELPA 950 Seminar-Organizational Theory and Behavior in Education Credits: 3
Theory and research on organizations, leadership, and administrator behavior. Prereq: ELPA 860 or cons inst
Typically Offered: Occasionally

ELPA 960 Seminar in Educational Finance Credits: 3
Problems of financing education; school financial management; and related research. Prereq: Post-masters st & ELPA 820 & 830 or cons inst
Typically Offered: Occasionally

ELPA 964 Hierarchical Linear Modeling Credits: 3
Introduction to the statistical methodology of hierarchical linear modeling, including random intercept and random slope and intercept models; models for longitudinal data; and multilevel generalized linear models. Prereq: Ed Psych 760 & 761, or equiv
Typically Offered: Occasionally

ELPA 965 Seminar in the Politics of Education Credits: 3
Research related to power structure, decision making, pressure groups, and professional influence in the formulation of public policy in education at the local, state, and national levels. Prereq: Post-masters st or cons inst
Typically Offered: Occasionally

ELPA 970 Seminar in Educational Planning Credits: 3
Comprehensive planning practices and procedures in selected educational settings and development of related research projects. Advanced study of topics related to the design and development of educational policies and operations, including appropriate research needs and methods. Prereq: Cons inst
Typically Offered: Occasionally

ELPA 990 Research or Thesis Credits: 1 - 12
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ELPA 999 Independent Reading Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

EDUCATIONAL POLICY STUDIES

ED POL 107 The History of the University in the West Credits: 3 - 4
The history of the university in the Western world from its beginnings in the 10th century to the present.
Concentrates on universities, students, and professors in Italy, France, England, Germany, and the United States. Prereq: Open to All Undergrads
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED POL 140 Introduction to Education Credits: 3
An introduction to fundamental educational questions, concepts, perspectives and ideas, designed to enable students to more thoughtfully examine and assess proposed and existing educational policies and practices. Prereq: Admission to Educ Fellows prgm. Open to Fr
Typically Offered: Fall

ED POL 145 Introduction to Education Policy Credits: 3
Examines education policy debates, policy processes, and school governance with attention to the multiple and sometimes conflicting goals that animate education debates; discourses and representations of schools, teachers and students that shape policy and politics; research on education and education policy outcomes and implementation; and key lenses and conceptual tools that can help us understand education policy. Course materials include original policy texts, empirical and conceptual research, and film. While the focus is on K-12 education in the United States, students will have the opportunity to consider early childhood education and higher education as well education in historical a L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ED POL 150  **Education and Public Policy**  Credits: 3
Educational controversies in social contexts. An examination of fundamental dilemmas concerning the nature and purpose of educational systems in the U.S.  Prereq: Open to All Undergrads
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ED POL 200  **Race, Ethnicity, and Inequality in American Education**  Credits: 3
Theories and research concerning the reasons for racial and ethnic differences in educational performance; the significance of contemporary and historical debates over educational inequality; policies and practices to reduce inequality in education.  Prereq: So st or cons inst
Ethnic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED POL 210  **Youth, Education, and Society**  Credits: 3
The purpose of this course is to explore the study of youth through theoretical, historical, social, and cultural perspectives. This class will interrogate the concept of “youth” as a socially constructed category and examine how “youth” have been positioned within educational, political, economic, and social contexts. Themes explored include: conceptions of youth as a social category, education and schooling, race, gender, sexuality, politics and activism, community-based learning, criminal justice, media and popular culture. By drawing on a variety of historical and contemporary “texts” and current events we will study the lived realities of youth who are situated within diverse racial, cu
Ethnic Studies: Yes  Typically Offered: Fall, Spring

ED POL 300  **School and Society**  Credits: 3
Contemporary issues and trends in public schooling. Topics include: cultural differences; achieving equality through schooling; schools as social institutions; the rights of students and teachers; and the nature and organization of the teaching profession.  Prereq: Soph st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED POL 335  **Globalization and Education**  Credits: 3
Introduces students to the origins, development, and debates in the field of globalization and education (GE); explores educational experiences in settings around the world; and examines how GE studies and approaches can inform learning, teaching, and research practices.  Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ED POL 340  **Comparative Education**  Credits: 3
Selected systems of education (Western and non-Western) within the respective socio-cultural and political contexts, and an introduction to comparative methodology.  Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ED POL 399  **Independent Reading**  Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED POL 412  **History of American Education**  Credits: 3
This course examines the history of education in America from the colonial period to the present, including the rise of common (public) schools; the education of populations differing by race, ethnicity, gender, language, religion, and social class; the development of school curricula; the politics of desegregation, bilingual education, and special education; and the evolving federal role in American education.  Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED POL 450  **Rethinking "After-School" Education**  Credits: 3
This course will provide students with the opportunity to engage with and discuss historical, ideological, and contemporary issues within community-based after school programs at large and within the Madison context. Students will also examine the social and political context of after school programs to better understand the ways in which they have the potential to meet important needs of youth and communities. Rethinking After School Education is a community-based learning course intended to provide students with a theoretical understanding of community-based educational spaces serving youth, as well as an applied and practical approach to working with and being of service to community-bas
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ED POL 460 Immigration, Education, and Equity Credits: 3
This course examines policy issues surrounding the education of children from immigrant families in K-16 educational settings in the U.S. Prereq: Undergraduates only
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED POL 478 Comparative History of Childhood and Adolescence Credits: 3
Growth of modern childhood and adolescent sub-cultures, class differences, literary and pictorial representations, legal and demographic developments, and the growth of educational theories and institutions. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED POL 500 Topics on Social Issues and Education Credits: 3
Contemporary social issues or problems and their significance for educational purposes and practices. Prereq: Junior standing
Typically Offered: Fall, Spring, Summer

ED POL 505 Issues in Urban Education Credits: 3
Urban education and its relationship to developing political, social, and economic factors. Prereq: Jr st
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED POL 510 Urban School Policy Credits: 3
This course examines urban school problems, politics, and policies in the United States. Among the issues we will consider are: the framing of K-12 urban schools; the social, economic and political factors shaping urban schools and school policy; frameworks for explaining urban school policy; goals for school reform; and contemporary policy proposals for urban school systems. The focus is on system-level educational problems, politics, and policies, though we will give some attention to schools and classrooms. Prereq: Junior standing or consent of instructor
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ED POL 516 Religion and Public Education Credits: 3
Examines theories and practices related to the role of religion in public schooling and its accompanying tensions: political and philosophical, practical and personal. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ED POL 518 Introduction to Debates in Higher Education Policy Credits: 3
Critical examination of debates surrounding contemporary higher education policies; emphasis on those policies affecting college access and success. Prereq: Jr, Sr, or Grad st
Typically Offered: Fall, Spring

ED POL 545 Philosophical Conceptions of Teaching and Learning Credits: 3
Examination and analysis of conceptions of teaching and learning in classical philosophical works and in contemporary literature in the philosophy of education. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED POL 550 Philosophy of Moral Education Credits: 3
Critical examination of classical and contemporary conceptions of moral education. Prereq: Jr st
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED POL 560 Gender and Education Credits: 3
The impact of gender on educational performance and opportunity and the problems of integrating family and alternative lifestyle needs into educational policy and planning. Prereq: Jr st and background in social sciences or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
ED POL 567 History of African American Education Credits: 3
An examination of the social, economic, political, and cultural issues influencing the education of Black Americans from the early nineteenth century to the 1960s. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED POL 570 Anthropology and Education Credits: 3
The current and historical relation of anthropology to education with particular reference to culture contact and social change, cultural perspectives on education and educational systems, learning as cultural transmission, and application of anthropological knowledge to curriculum. Prereq: Jr st
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ED POL 575 Education Policy and Practice Credits: 3
Examines the relationship between formal and informal policies and teachers' and administrators' practice. This will include attention to: (1) research on the teaching occupation and teachers' work, (2) policy implementation frameworks, and (3) other socio-cultural and political approaches to understanding the relationship between policy and educational practice. We will consider the multiple influences on educational practice (e.g. individual proclivities, relations between levels of government, organizational and political factors, discourses, resources, etc.) and a variety of conceptual/theoretical and methodological approaches. Teachers and administrators are viewed as implementers, appr
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ED POL 595 Language Politics, Ethnicity, and Education Credits: 3
An examination of language policy and education with special reference to political and ethnic issues. Case studies derived from North America, Europe, Asia, Africa, and Latin America with emphasis on bilingual education policies in the U.S. Prereq: Junior standing
Typically Offered: Fall, Spring

ED POL 600 Problems in Educational Policy Credits: 1 - 3
Policy area and faculty vary each semester. Prereq: Jr st
Typically Offered: Fall, Spring, Summer

ED POL 618 Community Colleges: Issues and Research Credits: 3
An exploration of the American community college, with an emphasis on the critical evaluation and assessment of community college research. This course pays special attention to issues of educational opportunity and inequality. Prereq: Junior standing
Typically Offered: Occasionally

ED POL 622 History of Radical and Experimental Education in the US and UK Credits: 3
Examines the comparative history of radical and experimental education in the United States and United Kingdom since 1800. It focuses on the social, cultural, and intellectual history of diverse educational experiments, including experiments related to socialism, abolitionism, anarchism, and religious fundamentalism. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ED POL 648 Sociology of Education Credits: 3
Educational institutions as social systems; role relationships, community contexts, relevant values and ideals, stratification, mobility, and recruitment to varied educational organizations, comparative educational systems. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 360 or equivalent, or School of Education classification, or consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ED POL 665 History of the Federal Role in American Education Credits: 3
This course examines the history of federal aid to education, emphasizing the post-World War II period. It addresses such topics as desegregation; bilingual, special, and compensatory education; policy implementation and evaluation; and the connections between executive, legislative, and judicial actions. Prereq: Jr st
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
ED POL 675 Introduction to Comparative and International Education Credits: 3
Introduction to comparative and international education theories, policies, topics, and methods. Includes case studies of current policy issues, which might include decentralization and governance, HIV/AIDS, neoliberalism, language, access and quality, testing and accountability, or educational borrowing and transfers. Prereq: Jr st
Typically Offered: Fall, Spring, Summer

ED POL 677 Education, Health and Sexuality: Global Perspective and Policies Credits: 3
Employs a lifecycle approach to examine the issues at the intersection of education and health that people face throughout the world, but especially in poor countries. Particular attention is placed on sexuality education, reproductive health, and infectious disease epidemics.
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ED POL 699 Independent Reading Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED POL 701 Introduction to Educational Policy Studies Credits: 3
An introduction to diverse scholarly perspectives in educational policy studies. Prereq: Grad st in EPS
Typically Offered: Occasionally

ED POL 713 History of Higher Education in Europe and America Credits: 3
Development of colleges, universities, and higher learning in Europe and America. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ED POL 719 Introduction to Qualitative Research Credits: 3
Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prereq: Grad st
Typically Offered: Occasionally

ED POL 721 Global Service Learning and Reflection Credits: 3
In this class, we will learn skills and techniques for thinking critically about what it means to be involved in global service and to be an agent of social change. This community-based learning course is designed to address three aspects of community-based learning: personal growth, civic learning, and a critical reflection on what it means to work in international development education. This class is divided into two concurrent activity streams: community-based learning experiences and classroom reflection. Prereq: Graduate standing or consent of instructor
Typically Offered: Fall, Spring, Summer

ED POL 723 Education for Global Change Credits: 3
How do people conceptualize and utilize education to (attempt to) create individual, familial, community, institutional, national, and global change? The class aims to push our collective understanding about the diverse ways that people have conceptualized change, its goals, and the mechanisms through which to produce change around the world. We will explore a diverse range of educational approaches (including formal, informal, non-formal, and "traditional" educational models) to transforming the world. It draws on a range of disciplinary and sectoral approaches, including education, public health, and public policy; and a broad range of change models, including individual and peer behavior
Typically Offered: Fall, Spring, Summer

ED POL 724 Poverty and Education: Transnational Perspectives on Policy and Practice Credits: 3
This course addresses current debates about the nature of poverty, how it might be ameliorated, how poverty is related to other inequities and unequal relations of power, and how theories of international development might help us analyze these changing relations around the world. These questions will be examined from a theoretical, historical, and practical perspective by providing an introduction to historical and contemporary debates on poverty, with a specific focus on the polities, practices, and institutions of education. Education is often understood as a way to end poverty. What are the underlying assumptions behind this idea? What are the contemporary educational interventions desig
Typically Offered: Fall, Spring, Summer
ED POL 725 Participatory Action Research and Programming Credits: 3
In this class, we will learn to critically analyze and utilize a toolkit of participatory information-gathering methods designed to ensure community participation and ownership in global development and change efforts. The class is divided into three sections. In the first section, we critically review the themes of participation, action, research, and programming, and we begin a semester long discussion about research positionality and reflexivity. In the second section of the class, we engage in a hands-on exploration of the four key stages of PAR/PARP: identification of the problem and of stakeholders, data collection, data analysis, and research-based action. In the third section, we exp
Typically Offered: Fall, Spring, Summer

ED POL 740 Classics in Education Credits: 3
Reading and discussion. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ED POL 745 Political Economy and Education Credits: 3
This course seeks to provide an introduction to political economy in the field of education from a theoretical, historical, and comparative perspective. Prereq: Graduate standing or consent of instructor
Typically Offered: Spring

ED POL 750 African Education: Past, Present and Future Credits: 3
Survey of indigenous and introduced forms of African education, formal and informal, in comparative format. The impact of Islam and Christianity on traditional educational styles. The struggle for modernity and cultural autonomy within the context of imperialism and international rivalries. Problems of nation-building, popular participation, and human resource development; educational planning and international cooperation. Prereq: Grad standing or consent of instructor
Typically Offered: Occasionally

ED POL 755 Methods of Qualitative Research Credits: 3
Introduces qualitative, or ethnographic, research methods, emphasizing those suitable for educational and other organizational settings. Considers strengths and limitations of qualitative approaches in relation to varied research problems. Explores methodological procedures from entry into the field through writing. Prereq: Cons inst
Typically Offered: Occasionally

ED POL 760 Education in Developing Societies Credits: 3
Selected systems of education with particular reference to the consequences of educational transfer or borrowing, and to education, nation building, and modernization. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ED POL 765 Issues in Educational Policy Analysis Credits: 3
Theory, research, and practical experience in educational policy analysis, including the social construction of policy problems in education; the design, implementation, and evaluation of policy responses; and the practical and ethical dilemmas of the policy analyst. Prereq: Grad st or cons inst
L&S Level: Advanced Typically Offered: Occasionally

ED POL 780 Special Topics in Educational Policy Studies Credits: 3
Topics vary each semester. See timetable for current topic. Prereq: Grad st
Typically Offered: Occasionally

ED POL 788 Qualitative Research Methods in Education: Field Methods I Credits: 3
Introductory field methods experience in qualitative research. Students will learn to define good research questions, determine which methods of data collection and analysis are useful for addressing those questions, engage in these methods, reflect on their utility in education research. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 719 or cons inst
Typically Offered: Spring

ED POL 789 Qualitative Research Methods in Education: Field Methods II Credits: 3
Focus on data analysis and translation of finds and implications. Students will gain theoretical and practical knowledge and skills regarding coding and analysis techniques, use of qualitative analytic tools, strategies for sharing findings with audiences beyond research team. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 788
Typically Offered: Spring
ED POL 795 Economics of Education  Credits: 3
Shows how basic economic concepts are applied to the study of education policy and what economic research has concluded about the efficiency of various types of education systems.  Prereq:  Grad st
Typically Offered:  Occasionally

ED POL 805 Gender Issues in International Educational Policy  Credits: 3
Exploration and analysis of recent debates related to gender issues in international educational policy, including the intersection of education and demographic processes, the play of history and culture, and the social construction of gender.  Prereq:  Grad st or cons inst
Typically Offered:  Occasionally

ED POL 830 School Finance and Resource Allocation  Credits: 3
Contemporary bases for collecting and distributing local, state, and federal funds for elementary and secondary education; problems and issues in financial support of education; current, alternative and more effective uses of educational resources.  Prereq:  Grad standing
Typically Offered:  Occasionally

ED POL 855 Issues in Elementary Education  Credits: 3
Critical survey of issues and trends; their social, educational basis; implications for elementary schools; examination and analysis of major problems.  Prereq:  Grad st
Typically Offered:  Occasionally

ED POL 860 Proseminar: Theory and Method in Comparative Education  Credits: 3
Critical analysis of theories, methods, and intellectual perspectives that have been employed in comparative studies of education.  Prereq:  Grad st and cons inst
Typically Offered:  Occasionally

ED POL 870 Theories of Social and Educational Change  Credits: 3
Analysis of several social theories emphasizing the explanation of social change, the role of education in the change process, and the implications for educational policy in contemporary society.  Prereq:  Grad st and cons inst
Typically Offered:  Occasionally

ED POL 872 Educational Policy Research Design and Implementation  Credits: 3
A policy research methods course which explores theories and practices relating to the development and implementation of educational policy with attention to matching appropriate policy research designs to policy goals and organizational contexts.  Prereq:  ELPA 870 or cons inst
Typically Offered:  Occasionally

ED POL 890 Marketization and Education Policy  Credits: 3
This course examines the origins, trends and issues in educational markets in education and what research within and outside of education has concluded about the effects of existing varieties of marketization in education and short and long term effects.  Prereq:  Open to Grad stdts
Typically Offered:  Fall, Spring

ED POL 903 History of Education of Multicultural America  Credits: 3
Selected topics, issues and themes concerning the history of education of various groups of people of color in the United States, as well as selected issues, topics and themes focusing on immigration and ethnicity.  Prereq:  Grad st
Typically Offered:  Occasionally

ED POL 906 Proseminar on the History of Education  Credits: 1 - 3
Reading in European or American educational history.  Prereq:  Grad st and cons inst
Typically Offered:  Occasionally

ED POL 907 Seminar-History of Education  Credits: 1 - 3
Studies in European and American educational history.  Prereq:  Grad st and cons inst
Typically Offered:  Occasionally

ED POL 908 Seminar-Sociology of Education  Credits: 3
Selected topics.  Prereq:  Grad st or cons inst
Typically Offered:  Occasionally
ED POL 911 Seminar in Urban Education  Credits: 2 - 3
Historical and contemporary urban education. Emphasis: preparation of graduate students to conduct research in problems of minority groups, and family influences on children. Open to graduate students in other disciplines and specialties which relate to the schools' program in urban centers. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ED POL 955 Seminar-Qualitative Methodology  Credits: 3
An intensive, practice-oriented exploration of one qualitative research method such as participant-observation, interviewing, narrative analysis, oral history or ethnognography. Treatment of the method includes: logics of inquiry, analysis of data obtained through the method, and uses of the method. Prereq: Grad st; soc, educ, or related soc sci background & cons inst
Typically Offered: Occasionally

ED POL 962 Seminar in Cross National Studies of Educational Problems  Credits: 3
Topics vary. Examples: education and the formation of elites; education and socio-economic development; the social functions of examinations; comparative studies in church-state-school relationships; the status of teachers; American overseas programs in educational modernization. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ED POL 963 Seminar-Educational Planning & Curric Change-Developing Countries  Credits: 3
Analyses and critiques of educational plans related to the social, political, economic, and educational contexts of the target countries. Supervised practice in planning curricular change and educational reforms for particular countries in the light of realistic requirements and constraints. Prereq: Grad st & Curric/Ed Pol 640 or Ed Pol 340 or Ed Admin 875 or cons inst
Typically Offered: Occasionally

ED POL 970 Seminar in Anthropology and Education  Credits: 3
Anthropological theory, methodology, and field techniques with specific reference to school ethnography and cross-cultural studies of socialization and education. Topics vary. Prereq: Grad st
Typically Offered: Occasionally

ED POL 990 Research or Thesis  Credits: 1 - 12
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ED POL 999 Independent Reading  Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

EDUCATIONAL PSYCHOLOGY

ED PSYCH 301 How People Learn  Credits: 3
Introduction to theories of learning in formal and informal settings, including theories related to memory, learning, and intelligence; cognitive, social, and affective aspects of learning; the influence of context on learning, including learning with psychological tools, such as language and technological resources; individual differences that may affect learning; and practical applications of learning theory. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED PSYCH 320 Human Development in Infancy and Childhood  Credits: 2 - 3
Normative processes and individual differences in physical, mental, social and emotional development and behavior from infancy through late childhood. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED PSYCH 321 Human Development in Adolescence  Credits: 2 - 3
Physiological, social, and cognitive changes which characterize the transition from childhood to adult life. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ED PSYCH 326 Mind, Brain and Education Credits: 3
This course will provide an overview of methods and findings at the interface between education and neuroscience. Readings and lectures will present findings on brain development from birth to adolescence, brain changes in response to learning and how individual differences in brains relate to individual differences in learning. Educationally relevant domains including language acquisition and bilingualism, the brain basis of reading and mathematics and executive functions like memory, attention and emotion will be highlighted. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ED PSYCH 331 Human Development From Childhood Through Adolescence Credits: 3
Social and psychological aspects of human development from early childhood through adolescence; implications for education. Prereq: Enrl in, or Sophomore standing w/pre-certificat in, one of these teacher certificate programs: art for preschl/kindgrtn-grade 12; music for p/k-12; phy ed for p/k- 12; spec ed p/k-12, & grades 1-9
Typically Offered: Fall, Spring

ED PSYCH 470 Research Experience in Educational Psychology Credits: 1 - 6
Research experience under the supervision of a faculty member in Educational Psychology. Students will develop an understanding of research in a topic area and will participate in team-based research. Course reading will include published research studies relevant to the selected topic, and evaluation will include presentations in group meetings or a paper based on the research conducted. Prereq: Consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ED PSYCH 506 Contemporary Issues in Educational Psychology Credits: 3
Influence of educational psychology upon issues and innovations in education. See Timetable for current topic. Prereq: None
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ED PSYCH 521 Adolescent Development in Educational Contexts Credits: 3
Normative patterns of physical, mental, social, moral, and psychological development during adolescence, with special emphasis on influences of educational settings and implications for schooling. Individual differences in adolescent development resulting from family and cultural background, personal characteristics, and historical events. Prereq: Admission to secondary educ cert progm
Typically Offered: Fall, Spring

ED PSYCH 533 Thinking, Feeling, & Learning Credits: 3
Covers the cognitive and emotional foundations of behavior with special reference to processes of learning and change. How does the science of thinking and feeling inform interventions such as teaching, counseling, or parenting? Topics covered include: dual-systems theories, neural and behavioral aspects of emotion and cognitive control, intuition, and expertise. We focus on the relation between unconscious, automatic processes and deliberate, effortful processes guiding behavior. Prereq: Consent of Instructor
Typically Offered: Fall

ED PSYCH 540 Introduction to Professional School Psychology Credits: 2
Introduction to the professional roles and functions of school psychologists; historical development; legal and ethical issues; overview of assessment, intervention, and consultation for children and adolescents at risk for, or with, academic, behavioral, emotional, and social difficulties; applied research in school psychology. Prereq: Grad st or cons inst
Typically Offered: Fall

ED PSYCH 541 Applied Behavior Analysis in Classrooms Credits: 3
Application of behavioral analysis to educational situations for both exceptional and normal children and adolescents.
Typically Offered: Fall

ED PSYCH 542 The Biological Basis of Behavior Credits: 3
Content will focus on: neuroscience foundational concepts relevant to clinical mental health practice, neuroanatomy, neurophysiology, psychopharmacology, disease states; ontological and phylogenic neurodevelopment. Course will also provide overview of ethical/cultural implications of these scientific advances. Ethical/Cultural/Economic Applications. Prereq: Grad st & at least 8 credits of undergraduate biology (or the equivalent). Students must have a basic understanding of biology and human anatomy and physiology. This prerequisite would normally be met by two or three undergraduate level courses in biology
Typically Offered: Fall
ED PSYCH 551 Quantitative Ethnography Credits: 3
Explores the theoretical foundations and practical use of quantitative ethnography, focusing on new insights in the field of cognitive modeling and automated coding and their use in applied fields such as anthropology, education, market research, product development, assessment, and training. Prereq: Ed Psych 301, graduate standing, or consent of instructor
Typically Offered: Every Other Fall

ED PSYCH 563 Design of Educational Games and Simulations Credits: 3
Examines the design of learning games and simulations. Topics include intelligent tutoring systems, serious games, and epistemic games, with particular emphasis on design for 21st century learning environments and learning 21st century skills. Prereq: Graduate standing or ED PSYCH 301
Typically Offered: Occasionally

ED PSYCH 570 Foundations of Educational Measurement Credits: 3
Theory of mental measurement, types of scales, reliability, validity, psychometric evaluation of published tests. Prereq: Any A-level Quantitative Reasoning course
General Education: QR-B Typically Offered: Fall

ED PSYCH 621 Adolescent Development in Educational Contexts Credits: 2
Overview of physical, cognitive, emotional, and social development during adolescence as these factors influence and are influenced by young people’s experiences in educational institutions. Prereq: Enrollment in Secondary Teacher Education Masters degree and certification program
Typically Offered: Fall

ED PSYCH 622 Structuring Secondary Schools for Adolescent Development Credits: 1
Designing instructional environments and learning activities to foster healthy adolescent development. Prereq: Ed Psych 621 and enrollment in Secondary Teacher Education Masters degree and certification program
Typically Offered: Summer

ED PSYCH 699 Independent Reading Undergrad Credits: 1 - 6
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ED PSYCH 708 The Study of Teaching Credits: 3
Alternative research approaches to the study of teaching; for example, process-product, aptitude treatment interaction, ethnographic. Prereq: Grad st
Typically Offered: Occasionally

ED PSYCH 709 Seminar in Research in Educational Psychology I Credits: 3
Areas of research in field, emphasis on logic of inquiry and development of strategies for investigating particular problems. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 710 Seminar in Research in Educational Psychology II Credits: 3
Planning and conducting empirical research project, with assistance from faculty advisor and course faculty. Prereq: Ed Psych 709
Typically Offered: Occasionally

ED PSYCH 711 Current Topics in Educational Psychology Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

ED PSYCH 715 Practicum for Teachers of the Gifted and Talented Credits: 3
Planning and conducting learning experiences for gifted students. Prereq: Ed Psych 501 and Grad st
Typically Offered: Occasionally

ED PSYCH 719 Introduction to Qualitative Research Credits: 3
Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prereq: Grad st
Typically Offered: Occasionally
ED PSYCH 720 Child Development Credits: 3
Individual development in infancy and childhood. Individual differences in and contextual influences on physical, cognitive, social, and personality development. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 721 Adolescent Development Credits: 3
Individual differences in and contextual influences on physical, cognitive, social, and personality development. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 722 Adult Development and Aging Credits: 3
Overview of individual development from young adulthood through middle and old age. Review of major conceptualizations of adult development and recent research regarding personality change, intellectual functioning, career and family stages, social relations, biological changes, sexuality, death and dying. Prereq: Ed Psych 723 or Ed Psych/Child&Fam 725 or cons inst
Typically Offered: Occasionally

ED PSYCH 723 Developmental Processes Across the Life Span Credits: 3
Life-span perspective on studying individual development from conception to death. Emphasis on multidisciplinary, multidirectional, and contextual approaches to physical, psychological, social, and intellectual developmental processes. Prereq: Grad st
Typically Offered: Occasionally

ED PSYCH 725 Theory and Issues in Human Development Credits: 3
This course covers both classic and contemporary theories, providing students with a firm grounding in the theoretical perspectives that have shaped and are shaping understandings of human development across the life-span. The course explores the historical roots of contemporary perspectives and examines the development of theoretical conceptualizations both within and across theoretical perspectives. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 726 Ethnic and Racial Diversity in Social Development Credits: 3
Review of empirical and theoretical research on ethnic/racial diversity in social development across childhood, adolescence and early adulthood with emphasis on implications for counseling and school psychology. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 731 Laboratory in Developmental Research Credits: 3
Emphasis on developing skills necessary for researchers in human development, observational techniques, experimental methods in infant and child research, design of lab equipments, research design for developmental problems. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 735 Legal and Ethical Bases of Counseling and Psychology Credits: 3
Legal and ethical issues for psychologists, with an emphasis on the APA ethics code and Wisconsin statutes relevant to psychological research and practice. Prereq: Graduate or professional standing
Typically Offered: Fall

ED PSYCH 736 Seminar in Psychology of Individual Differences Credits: 3
Graduate-level seminar in the psychology of individual differences, providing broad and general coverage of theory and research related to individual and cultural differences. Prereq: Graduate or professional standing
Typically Offered: Fall

ED PSYCH 737 Seminar in History and Systems of Psychology Credits: 3
Graduate-level seminar in the history of psychology, providing broad and general coverage of the development of psychology as a scientific discipline. Includes coverage of philosophy of science and systems of psychological inquiry, with applications to current research in psychology. Prereq: Graduate or professional standing
Typically Offered: Summer
ED PSYCH 740 Cognitive Assessment of Children in the Schools Credits: 3
Theories of intelligence and intelligence testing, construction and validation of the Binet and Wechsler tests, administration of tests, interpretation of test results and report writing, recent research in intelligence testing. Prereq: Ed Psych 570 & 760 or Psych 210 & 370 or cons inst
Typically Offered: Occasionally

ED PSYCH 741 Social, Emotional, and Behavioral Assessment Credits: 3
Knowledge and skills necessary to conduct comprehensive assessments of social, emotional, and behavioral difficulties in children and adolescents; theoretical foundations; assessment procedures and instruments; diagnostic and eligibility criteria; early identification and intervention. Prereq: Ed Psych 740 or cons inst
Typically Offered: Occasionally

ED PSYCH 742 Assessment and Intervention for Academic Skill Problems Credits: 3
Assessment methods and intervention strategies for children with academic skill problems in educational settings; practice in application of assessment and intervention approaches to case studies. Prereq: Cons inst
Typically Offered: Occasionally

ED PSYCH 743 Design and Analysis of Single-Case Research Credits: 3
Course designed to increase the capacity of graduate students to conduct high-quality single-case intervention research, by improving the scientific credibility of both the methodology; and the visual and statistical analysis of their studies. Although designed as an initial course in single-case research design, this course will equip students with the skills and knowledge to critically analyze published intervention research and to implement quality intervention research studies. Prereq: Consent of instructor
Typically Offered: Spring

ED PSYCH 745 Designing and Managing the Learning Environment Credits: 3
This course provides students with knowledge and skills necessary to effectively and efficiently engage with students and manage the classroom environment. Students' ability to support the academic and social-emotional growth of children will be enhanced through knowledge gained regarding children's self-regulation, motivation, school climate, multi-tiered behavioral interventions, and schoolwide positive behavior support. Prereq: Students must be enrolled in the Master of Science for Professional Educators program or have consent of instructor
Typically Offered: Summer

ED PSYCH 752 Engaging with Education Research Credits: 1
This course introduces students to issues in consuming and conducting education research. The focus of the course is on research paradigms and methods frequently used in education research. Prereq: Enrollment in the Master of Science for Professional Educators program or consent of instructor
Typically Offered: Summer

ED PSYCH 760 Statistical Methods Applied to Education I Credits: 3
Introductory descriptive statistics and statistical inference; measures of central tendency and variability, confidence intervals, theory of hypothesis testing, correlation techniques. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 761 Statistical Methods Applied to Education II Credits: 3
Analysis of variance and covariance, multiple linear regression; chi-square and various nonparametric techniques. Prereq: Ed Psych 760 or Psych 210
Typically Offered: Occasionally

ED PSYCH 762 Introduction to the Design of Educational Experiments Credits: 3
Classical experimental designs and their application to educational research, factorial treatment arrangements, confounding, repeated measures design, and related topics. Prereq: Ed Psych 760, 761
Typically Offered: Occasionally

ED PSYCH 763 Regression Models in Education Credits: 3
An applied introduction to regression techniques is given, covering nonparametric regression, multiple linear regression and logistic regression. All applied analyses are done in the statistical programming language R. Prereq: Ed Psych 760 and 761, or equivalent introductory statistics courses (with consent of instructor)
Typically Offered: Fall
ED PSYCH 770 Human-Computer Interaction Credits: 3
Principles of human-computer interaction (HCI); human subjects research methods and procedures, qualitative and quantitative data analysis; and semester-long research project situated in critical domains of HCI, including applications in ubiquitous, affective, assistive, social, and embodied computing. Prereq: Graduate or professional standing
Typically Offered: Fall

ED PSYCH 771 Test Construction Credits: 3
Procedures for development and analysis of educational tests and questionnaires; strategies for measurement of achievement, attitude, and interests; procedures for item analysis and assessment of reliability and validity. Prereq: Ed Psych 760 and 570
Typically Offered: Occasionally

ED PSYCH 773 Factor Analysis, Multidimensional Scaling and Cluster Analysis Credits: 3
Major types of factor models, nonmetric multidimensional scaling methods and clustering procedures. Methods of data collection, mathematical algorithms, estimating the number of factors, transformation and identification of factors. Prereq: Ed Psych 761
Typically Offered: Occasionally

ED PSYCH 780 Teacher Leadership and Learning Communities Credits: 3 - 4
Focuses on knowledge and skills teachers need to be leaders in their schools in facilitating the development of strong learning communities that include students, teachers, families, administrators, and other educators. Main objectives are to help students understand key concepts, theories, and models used in building and sustaining effective learning communities; develop skills in creating practices that contribute to effective teacher leadership; and identify and strengthen skills needed to lead schools to build learning communities that promote student learning. Prereq: Enrollment in the Master of Science for Professional Educators program or consent of instructor
Typically Offered: Fall

ED PSYCH 788 Qualitative Research Methods in Education: Field Methods I Credits: 3
Introductory field methods experience in qualitative research. Students will learn to define good research questions, determine which methods of data collection and analysis are useful for addressing those questions, engage in these methods, reflect on their utility in education research. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 719 or cons inst
Typically Offered: Spring

ED PSYCH 789 Qualitative Research Methods in Education: Field Methods II Credits: 3
Focus on data analysis and translation of finds and implications. Students will gain theoretical and practical knowledge and skills regarding coding and analysis techniques, use of qualitative analytic tools, strategies for sharing findings with audiences beyond research team. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 788
Typically Offered: Spring

ED PSYCH 791 Master of Science for Professional Educators Capstone Credits: 1 - 4
The MSPE Capstone course is a class in which students complete an investigation of a policy or practice in their classroom, school, or school district. Students’ capstone investigations are individualized to their interests and practice and reflect research and content knowledge gained from preceding MSPE courses. Prereq: Students must be enrolled in the Master of Science for Professional Educators
Typically Offered: Fall, Spring

ED PSYCH 792 Tools for Thought Credits: 3
Cognitive analysis of educational technologies, exploring relationships among tools, thinking, and learning. Studies of Froebel's gifts and occupations, typewriters, film and video, spreadsheets, word processors, the Internet, and other tools for analyzing technology and education. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ED PSYCH 795 Introduction to Learning Sciences I Credits: 3
Survey of major theories and elementary cognitive and social processes in learning. Prereq: Grad st
Typically Offered: Occasionally
ED PSYCH 796 Introduction to the Learning Sciences II Credits: 3
Principles of learning emphasizing higher order cognitive and social processes. Prereq: Ed Psych 795 or cons inst
Typically Offered: Occasionally

ED PSYCH 803 Computational Research Methods Credits: 3
Provides a broad overview of ways of formulating and investigating novel questions with tools from educational data mining and learning analytics including social network analysis, natural language processing, Markov modeling, Bayesian inference, and agent-based modeling. Prereq: Graduate or professional standing
Typically Offered: Every Other Fall

ED PSYCH 821 Constructionism Credits: 3
This course is a survey of constructionist theory, research, and tools. Course content and activities will help students develop a deeper understanding of the history, theories, philosophies, tools, research, and technologies of constructionism and its children. Prereq: Graduate standing
Typically Offered: Occasionally

ED PSYCH 822 Introduction to Quantitative Inquiry in Education Credits: 3
Prepares doctoral students to use the concepts and methods of quantitative social science research to conduct research on education issues. Topics include hypothesis testing, statistical inference, point estimates, graphic and numerical data displays, correlation and regression. Prereq: Graduate standing
Typically Offered: Fall

ED PSYCH 827 Surveys and Other Quantitative Data Collection Strategies Credits: 3
This course examines the methods and concepts of survey research methods as they are commonly used in education research. Strategies include surveys (phone, mail, electronic, in person), logs/diaries, and experience sampling instruments. Emphasis is given to self-administered surveys, including periodic surveys, since these strategies are the most common in education research. Prereq: Graduate standing
Typically Offered: Fall

ED PSYCH 840 Clinical Practicum in School Psychology Credits: 1 - 6
Applied experience in comprehensive psychological and educational evaluation procedures with children, parent interviewing, school consultation; remedial therapeutic, and counseling techniques with children and parents; practicum experience individually determined by student's prior training and course work. Prereq: Ed Psych 740, 741 & cons inst
Typically Offered: Occasionally

ED PSYCH 844 Childhood and Adolescent Psychopathology in Schools Credits: 3
Reviews major psychological disorders of childhood and adolescence as relevant to schools; examines etiology and developmental course, documenting major characteristics and behavior correlates of disorders; provides a comparison of major diagnostic and classification systems for childhood psychopathology. Prereq: Grad st
Typically Offered: Occasionally

ED PSYCH 845 Psychopharmacological Treatments for Children and Adolescents Credits: 3
Provides an overview of psychopharmacological treatments of childhood and adolescent disorders in educational settings. Topics covered include basic biological principles of drugs and drug treatment, specific drug classifications and their biological actions, drug treatments for childhood disorders, and professional issues. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ED PSYCH 861 Statistical Analysis and Design in Educational Research Credits: 3
A non-parametric perspective of classical experimental designs and their application to educational research, factorial treatment arrangements, repeated measures designs, and related topics. Prereq: Ed Psych 760 or equiv
Typically Offered: Occasionally

ED PSYCH 862 Multivariate Analysis Credits: 3
Advanced statistics devoted to multivariate distribution theory and analysis; multivariate analysis of variance, discriminant analysis, canonical correlation, etc., considered in relation to each other; review of contributions of Fisher, Hotelling, Rao, and others. Prereq: Ed Psych 861 or cons inst
Typically Offered: Occasionally
ED PSYCH  871 Test Theory II  Credits: 3
Continuation of 870. Theory underlying validity, scoring procedures, prediction and classification, normal, binomial, Poisson and logistic models.  Prereq:  Differential calculus and an intermed crse in stat required
Typically Offered:  Occasionally

ED PSYCH  880 Prevention Science  Credits: 3
This course provides a theoretical, empirical and practical foundation for prevention science as it relates to the prevention of human social problems. Research and evaluation methods, program design strategies, best practices and policy as they relate to the field of prevention are also examined. Intended for 2nd year graduate students.  Prereq:  Graduate or professional standing
Typically Offered:  Occasionally

ED PSYCH  881 Capstone Seminar in Prevention Science  Credits: 1
This course provides an opportunity for students to meet with prevention professionals and scholars from across campus and the community to explore current and emerging issues of prevention research and professional practice.  Students must complete HDFS 880 before taking this course.  Prereq:  Consent of instructor
Typically Offered:  Occasionally

ED PSYCH  920 Seminar in Child Development  Credits: 2 - 3
Specialized seminar focusing on topics in the social, emotional, and cognitive development of children. Investigations of the relations between development, learning, and behavior in educational contexts. See timetable for current topics.  Prereq:  Cons inst
Typically Offered:  Occasionally

ED PSYCH  921 Seminar in Adolescent Development  Credits: 2 - 3
Selected aspects of intellectual, emotional, physiological, personality and social development in adolescence. Understanding adolescent behavior in educational settings.  Prereq:  Graduate or professional standing
Typically Offered:  Occasionally

ED PSYCH  925 Advanced Seminar in Human Development  Credits: 2 - 3
This course is designed to provide an in-depth review and analysis of specific areas of human development, such as cognitive, moral, language, neurological, social, and personality development.  Prereq:  None
Typically Offered:  Fall, Spring

ED PSYCH  942 Systems of Consultation in School Psychology  Credits: 2 - 3
Mental health, behavioral and organization development models of consultation in school psychology. Overview of evidence-based prevention and intervention programs as implemented in a consultation problem-solving process.  Prereq:  Cons inst
Typically Offered:  Occasionally

ED PSYCH  943 Internship in School Psychology  Credits: 1 - 12
Supervised individualized placements in appropriate schools, institutions, and community agencies; controlled exposure to job demands of school psychologists; experience in dealing with problem children, adolescents, and their families.  Prereq:  Cons inst
Typically Offered:  Occasionally

ED PSYCH  944 Internship Preparation  Credits: 1
Primary goal of this course is to help students in Counseling Psychology, Rehabilitation Psychology & Special Education, and the School Psychology Program prepare for their internship by providing recourses, guidelines, and support in selecting and applying to internship sites.  Prereq:  Dissertator status in the department
Typically Offered:  Fall

ED PSYCH  945 Evaluation Research  Credits: 3
A comprehensive introduction to practice of program evaluation research in social welfare and human development. Developments in descriptive, experimental, quasi-experimental, theory-driven, and naturalistic evaluations detailed. Topics include assessment, evaluation design, monitoring, outcome evaluation, selection bias, program theory, meta-analysis and utilization.  Prereq:  Grad st
Typically Offered:  Occasionally
ED PSYCH 946 Advanced Assessment and Intervention Techniques Credits: 3
Advanced assessment practices and the corresponding link to intervention; intervention strategies and programs designed to improve the academic, emotional, behavioral and social functioning of children and adolescents. Prereq: Cons inst Typically Offered: Occasionally

ED PSYCH 947 Evidenced-based Child and Adolescent Psychotherapy Credits: 3
Critical review of various psychotherapeutic approaches (cognitive, behavioral, psychodynamic) with special emphasis on identifying and implementing evidence-based assessment and interventions for a variety of behavioral and emotional problems experienced by children and adolescents. Prereq: Cons inst Typically Offered: Occasionally

ED PSYCH 948 Research and Measurement Seminar in School Psychology Credits: 3
Focus on research and measurement methods, special topics, technical writing, and ethical principles in conducting research in school psychology. Emphasis on skills needed to design and complete individual research projects. Prereq: Consent of instructor Typically Offered: Occasionally

ED PSYCH 949 Structural Equation Modeling Credits: 3
Introduction to the theory and practice of structural equation modeling in the educational and social sciences, including path analysis, confirmatory factor analysis and hybrid models. Prereq: Ed Psych 760 & 761, or equiv Typically Offered: Occasionally

ED PSYCH 960 Seminar-Statistics and Research Design Credits: 3
Prereq: Cons inst Typically Offered: Occasionally

ED PSYCH 961 Design & Analysis of Quasi-Experiments for Causal Inference Credits: 3
An applied introduction to causal inference with regression discontinuity designs, interrupted time series designs, non-equivalent control group designs (matching designs), and instrumental variable designs is given. Prereq: Ed Psych 763 or equivalent regression courses (with consent of instructor) Typically Offered: Spring

ED PSYCH 962 Hierarchical Linear Modeling Credits: 3
Introduction to the statistical methodology of hierarchical linear modeling, including random intercept and random slope and intercept models; models for longitudinal data; and multilevel generalized linear models. Prereq: Ed Psych 760 & 761, or equiv Typically Offered: Occasionally

ED PSYCH 970 Advanced Seminar in Educational Measurement and Statistics Credits: 1 - 2
Each week, students will read and discuss a different current article from the educational statistics and measurement literature. The purpose of this course is to explore a variety of subjects in which students might like to eventually conduct research. Prereq: Ed Psych 871 or cons inst Typically Offered: Occasionally

ED PSYCH 990 Research or Thesis Credits: 1 - 12
Prereq: Grad st Typically Offered: Occasionally

ED PSYCH 995 Predoctoral Internship Credits: 0
Registration for Ph.D. students who have successfully defended the dissertation and are in the process of completing the required predoctoral internship. Prereq: Successful dissertation defense Typically Offered: Fall, Spring, Summer

ED PSYCH 999 Independent Reading Credits: 1 - 3
Prereq: Grad St Typically Offered: Occasionally

INTEGRATED SCIENCE
INTEGSCI 299 Independent Study  Credits: 1 - 3
Provides academic credit for research, library, and/or laboratory work under direct guidance of a faculty or instructional academic staff member. Students are responsible for arranging the work and credits with the supervising instructor. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

INTEGSCI 320 Internship  Credits: 1 - 3
Provides academic credit for skill development in authentic contexts in science education including service, peer mentoring, and leadership. See class notes for additional information. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

INTEGSCI 375 Special Topics in Integrated Science  Credits: 1 - 3
This course examines various special topics in science or science education. See class notes for additional information. Prereq: Requisites vary by topic
Typically Offered: Fall, Spring, Summer

INTEGSCI 675 Special Topics  Credits: 1 - 3
This course examines various special topics in science or science education. See Class Notes for additional information. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring, Summer

INTEGSCI 699 Independent Study  Credits: 1 - 3
Provides academic credit for advanced research, library, and/or laboratory work under direct guidance of a faculty member. Students are responsible for arranging the work and credits with the supervising faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

KINESIOLOGY

KINES 100 Exercise, Nutrition, and Health  Credits: 2
Guidelines and assessment methods for fitness and nutrition. Motivation, adherence and stress-reduction techniques discussed. Lecture-demonstration concerning effects of exercise and nutrition on health and well-being. Team-taught by faculty and staff with expertise in exercise physiology, nutrition, and psychology. Prereq: Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

KINES 104 Aquatics  Credits: 1
Attainment and maintenance of a high degree of personal efficiency in swimming strokes and proficiency in fundamental aquatic skills, and an understanding of the fundamental physiological, mechanical and kinesiological principles as they relate to aquatic performance. Prereq: Swimming I or cons inst
Typically Offered: Fall, Spring, Summer

KINES 115 Physiology of Human Performance  Credits: 3
Humans are capable of achieving astonishing performances in athletics, in work and in other extraordinary situations. These extraordinary performances often provide important insights into physiological processes and their limits. This course integrates information from biology, chemistry, psychology, mechanics, etc., to understand the factors that determine and limit human performance from the molecular level all the way up to whole body movement. The emphasis in the class is on using case studies to investigate physiological processes underlying movement, exercise, and performance. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

KINES 116 First Aid and Basic Life Support  Credits: 2
Techniques and procedures to deal effectively with common emergencies. Includes training in airway obstruction, cardiopulmonary resuscitation, automated external defibrillation, injuries, and medical emergencies. Prereq: Open to Freshmen & all students-not to count credit towards degree for L&S students
Typically Offered: Fall, Spring, Summer

KINES 119 Introduction to Kinesiology  Credits: 2
Introduces students to the field of kinesiology and the Department of Kinesiology at the University of Wisconsin-Madison. Introductory material about physical activity and health will be provided, and career opportunities in kinesiology will be discussed. Prereq: Open to All Undergrads
Typically Offered: Fall, Spring, Summer
KINES 121 Foundations of Physical Education  Credits: 2  
Introduction to physical education teaching, movement education, and an operational understanding of the scientific study of human movement. Lecture and lab. Prereq:  PEC, PED or consent of instructor. Open to Freshmen  
Typically Offered: Fall

KINES 123 Living well: Lifestyle balance and health promotion for college students  Credits: 2  
This course is designed to promote student's wellness as they manage college life and its demands. It examines health and well being related to college students' time-use patterns; balance among daily activities; daily routines and habits; circadian rhythms, energy cycles and sleep; self-care activities; and stress management. Students in this course apply course material to their own lives by participating in a self-analysis of their lifestyle, participating in mindfulness and other wellness activities, and engaging in a lifestyle balance project. Prereq: None  
Typically Offered: Fall, Spring, Summer

KINES 125 Adapted Fitness and Personal Training  Credits: 1  
Fitness class for developing individualized personal goals. Accommodates persons having temporary or permanent disability. Alternative to dropping from other program classes due to injury or other medical reason.  
Prereq: Open to Freshmen  
Typically Offered: Fall, Spring, Summer

KINES 126 Gymnastics for Teaching  Credits: 2  
Teaching progressions, spotting, and safety in men's and women's gymnastics events and equipment. Prereq: Kines 121  
Typically Offered: Fall

KINES 127 Introduction to Athletic Training  Credits: 2  
An introductory course covering issues and basic concepts regarding prevention, management, and treatment of athletic injuries. The role of the athletic trainer in the sports medicine field is emphasized. Prereq: PKN or PED classification, or cons inst  
Typically Offered: Fall, Spring

KINES 129 Introduction to Yoga Practice  Credits: 1  
An introduction to yoga practice, philosophy, history, and traditions.  
Typically Offered: Fall, Spring

KINES 134 Movement Techniques for Stress Management  Credits: 1  
Use of movement strategies to develop skills for reducing tensions associated with stress. Strategies include neuromuscular relaxation, flexibility exercises and movement awareness techniques. Prereq: Open to Freshmen  
Typically Offered: Fall, Spring

KINES 140 Science and Practice of Resistance Training  Credits: 2  
Lectures and demonstrations on the principles of resistance training and associated physiological effects designed for practitioners who wish to gain a detailed understanding of the science of resistance training.  
Prereq: None  
Typically Offered: Fall, Spring

KINES 141 The Science & Practice of Marathon/Distance Running  Credits: 2  
Advanced running course. Principles of long distance/marathon running are discussed and applied; provides a foundation for high level aerobic fitness. Lecture/discussion in areas of biomechanics, nutrition, training principles and programs, physiology, and running performance. Tempo/endurance featured throughout course. This course is intended for students who run 15+ miles/week. Prereq: None  
Typically Offered: Not Applicable

KINES 145 Choosing To Move: Constructing an Active Lifestyle  Credits: 2  
Will promote physical activity at a level to achieve health benefits, particularly in students who currently are insufficiently active (less than 150 minutes each week of moderate intensity physical activity). Students will apply course materials (e.g., behavior change strategies) to their own lives by completing self-analysis of their physical activity levels and then developing a physical activity plan to increase current physical activity levels, as well as a plan to maintain the activity after the course has ended. Prereq: None  
Typically Offered: Fall, Spring, Summer
KINES 147 Tai Chi Ch’uan Credits: 1
Learn and practice 24-movement Yang Style Tai Chi Form and Animal Frolic Qi Gong Form Prereq: None
Typically Offered: Fall, Spring, Summer

KINES 197 Techniques in Athletic Training Credits: 1
An applied clinical approach to basic skills commonly used in the field of athletic training. Designed for students interested in athletic training, and an appropriate elective for those who plan to teach or coach. Prereq: PKN or PED classification, or cons inst
Typically Offered: Spring

KINES 227 Introduction to Clinical Anatomy of Human Movement Credits: 2
Designed to provide students with a foundational knowledge in musculoskeletal anatomy and anatomical considerations related to human movement and physical activity. Prereq: Kines 127, enrolled in Kines 127, or cons inst
Typically Offered: Fall

KINES 235 Human Physiology and Health Credits: 4
In this introductory course students learn basic physiological concepts, apply them to understand human health and disease, and link them to broader core concepts in biology. Each student completes a project in which they apply their conceptual understanding of general biology and physiology to investigate and create informational materials for the public about a disease or health promotion strategy. The foundational knowledge covered in this course serves students interested in health sciences majors, as well as non-science students interested in lifelong health. Prereq: None
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

KINES 240 Methods of Teaching Invasion Games and Sports Credits: 1
An examination of differences and similarities of various invasion games. Sequencing of skills and development of concepts to produce effective performance. Instruction in the teaching of invasion games to incorporate individuals of all ability levels. Prereq: KNS or PED classification or consent of instructor
Typically Offered: Spring

KINES 277 Kendo: Integration of Martial Arts and Liberal Arts Credits: 2
Kendo practice (martial art) supplemented by lecture describing its historical roots and philosophical background.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

KINES 300 Practicum in Kinesiology Credits: 1 - 3
Supervised experience in a specialized area of physical education. Prereq: Jr st & Kines 335 or 318 or 314, kines major or cons inst
Typically Offered: Fall, Spring, Summer

KINES 301 Advanced Techniques in Athletic Training Credits: 2
A course to provide the future athletic training professional with a foundation in advanced athletic training techniques. Sample topics include: injury prevention, emergency care, orthopedic appliance applications, protective equipment, environmental considerations, and computer applications. Prereq: Kines 127, 197, acceptance into athletic training clinical program, or cons inst
Typically Offered: Fall

KINES 314 Physiology of Exercise Credits: 4
Fundamental knowledge about, and appreciation for, the adaptability of human physiological systems in meeting a range of exercise demands. Prereq: College chem & physiol; major in kinesiology or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

KINES 315 Assessment and Research in Physical Activity Pedagogy Credits: 3
Course topics and laboratory experiences will focus on parameters that are measured in physical activity pedagogy; instruments for measuring physical activity, health related fitness, knowledge, and psychological characteristics; concepts of assessment and research, basic statistical methods; and action research. Prereq: Math 112 or exempt status; major in kinesiology or cons inst
General Education: QR-B Typically Offered: Fall, Spring
KINES 316 Adapted Physical Activity Credits: 3
An understanding of foundations, assessment and pedagogy for individuals with disabilities in a variety of physical activity settings. Emphasis on individual differences, life-span, and self-actualization. Prereq: Anat 329 or cons inst
Typically Offered: Fall, Spring

KINES 317 Evaluation and Diagnosis of Orthopedic Conditions Credits: 4
The evaluative skills and knowledge needed for minimum competency in the recognition, evaluation, and diagnosis of orthopedic conditions common to active populations. Prereq: Declared in Athletic Training
Typically Offered: Fall

KINES 318 Biomechanics of Human Movement Credits: 3
Analysis of human action through the application of mechanical principles. Prereq: Anatomy 328 & 329 and Math 112; major in kinesiology, or cons inst
Typically Offered: Fall, Spring, Summer

KINES 323 Physical Education for Elementary School Children Credits: 3
Introduction to program development in physical education for elementary education majors. Prereq: El Ed majors or cons inst
Typically Offered: Fall, Spring

KINES 325 Group Development and Behavior Management Credits: 3
Provide students with opportunities and experiences to learn and participate in the development of groups. Provide students with strategies and experiences in the management of behaviors and techniques to maintain a safe and productive teaching environment. Prereq: None
Typically Offered: Spring

KINES 327 Current Topics in Outdoor Pursuits Credits: 1
Introduce students to several outdoor activities to enable the teaching of these topics. Prereq: Kinesiology 370 or consent of instructor
Typically Offered: Summer

KINES 328 Human Anatomy Credits: 3
Lectures. Structure of the human body. Prereq: Admission to professional curric in nursing, pre-nursing, or pre-physician assistant program
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

KINES 329 Human Anatomy-Kinesiology Credits: 2
Prereq: Kinesiology major; kinesiology majors must take Anatomy 328 prior to or concurrent with Anatomy 329. Required for dance-related majors. Open to Fr
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

KINES 330 Research in Kinesiology Credits: 2
The research process as applied in kinesiology, including hypothesis development, ethical issues, study design, measurement and statistical concepts, and presentation of results. Includes exposure to current research within the Department of Kinesiology. Prereq: Math 112 or exemption; Stats 371 or Psych 210 or equivalent; kinesiology major or consent of instructor
Typically Offered: Fall, Spring

KINES 332 Specialized Teaching Experience Credits: 1
Prereq: Kines 361, Curric 378, PEC designation or cons inst; current CPR & First Aid certification
Typically Offered: Fall, Spring

KINES 335 Methods of Teaching Elementary Physical Education Credits: 3
Theory, organization, and teaching; small group teaching in elementary schools. Prereq: Kines 360 & Curric 378; PEC designation or consent of instructor
Typically Offered: Fall

KINES 350 Introduction to Exercise Psychology Credits: 3
Emphasis on the psychological foundations of exercise with motivational techniques, perception of effort, personality dynamics, and mental health serving as the focal points. Prereq: Junior standing or consent of instructor
Typically Offered: Fall, Spring, Summer
KINES 353 Health and Physical Education in a Multicultural Society Credits: 2
Familiarize students with perspectives of culture and diversity, the concepts and importance of culturally responsive teaching, and the Act 31 requirement for teacher education students within a health and physical education/activity context. Students will have opportunities to incorporate concepts from class into their Multicultural Field Experience. Prereq: Junior standing and (declared in Physical Education, Kinesiology or Athletic Training)
Typically Offered: Fall

KINES 355 Socio-Cultural Aspects of Physical Activity Credits: 3
An introduction to the philosophy of physical activity/education, history of physical activity/education and sport, and sociology of sport. Prereq: Kinesiology major and Junior standing or consent of instructor. Successful completion of or exemption from Communication Part A requirement. Courses designated as satisfying the Part A requirement cannot be used to satisfy the Communication Part B requirement.
General Education: COM B  Typically Offered: Spring

KINES 357 Therapeutic Strategies in Athletic Training I Credits: 4
A study of therapeutic intervention strategies used by athletic trainers. Evidence guided principles and clinical applications of therapeutic exercise, use of physical agents, indications and contra-indications, program design, progression, and standard documentation. Prereq: Kines 317 or cons inst
Typically Offered: Spring

KINES 358 Therapeutic Strategies in Athletic Training II Credits: 4
A study of therapeutic intervention strategies used by athletic trainers. Evidence guided principles and clinical applications of therapeutic exercise, use of physical agents, indications and contra-indications, program design, progression, and standard documentation. A continuation of Kines 357. Prereq: Kines 357
Typically Offered: Fall

KINES 360 Lifespan Motor Development Credits: 3
(For majors) Motor development in individuals at various points in the life span; use of such information as a framework for assessing levels of motor development. How to observe movement, interpreting and using such information as one important basis for planning what and how to teach. Prereq: Major in kinesiology or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

KINES 361 Motor Learning and Performance Credits: 3
A basic and up-to-date view of the major processes and mechanisms underlying the performance and learning of motor skills. Principles in motor learning and control are systematically introduced to produce a meaningful conceptual framework. Prereq: Psych 202 or Ed Psych 331; major in kinesiology or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

KINES 364 Assessment and Programming in Adapted Physical Education Credits: 3
Physical education methods, programs and assessment procedures related to individuals with a variety of disabilities. Prereq: Kines 316 & 315 or equiv
Typically Offered: Fall

KINES 365 Practicum: Adapted Physical Education Credits: 2
A practicum experience for individuals who are emphasizing the area of Physical Education/Special Populations. Six hours per week working with individuals who have disabling conditions. Prereq: Cons inst
Typically Offered: Spring

KINES 370 Planning, Teaching and Assessment in Physical Education Credits: 3
Prepare the kinesiology student in organizing, planning, assessing and implementing developmentally appropriate learning experiences aligned with local, state, and national standards to address the diverse needs of all students. Prereq: KINES 360 or concurrent registration
Typically Offered: Fall, Spring
KINES 371 Methods of Teaching PK-12 Dance and Gymnastics Credits: 3
Methods of instruction in movement concepts, educational dance and gymnastics. Students will gain practice in planning, teaching, and assessing home school students, as well as practice in assessing their own teaching. Students will apply concepts presented in Kines 370 Planning and Teaching Physical Education. Prereq: Successful completion (or concurrent) of Kinesiology 370, Dance 2, Dance 205 Kinesiology major, or consent of instructor
Typically Offered: Spring

KINES 372 Methods of Teaching PK-12 Educational Games and Fitness Credits: 3
Address methods of instruction in motor skills, educational games and fitness. Students will gain practice in planning, teaching, and assessing public school students, as well as practice in assessing their own teaching. Students will apply concepts presented in Kines 370 Planning and Teaching Physical Education. Prereq: Successful completion of Kinesiology 370, Kinesiology major, or consent of instructor
Typically Offered: Fall

KINES 373 Methods of Teaching Secondary Sport Concepts and Skills Credits: 3
Addresses methods of instruction in sport tactical concepts and skills. Students will gain practice in planning, teaching, and assessing secondary school students, as well as practice in assessing their own teaching. The goal is for students to develop into proficient teachers. Students will apply concepts presented in Kinesiology 370 Planning and Teaching Physical Education. Prereq: Successful completion of Kinesiology 370, Kinesiology major and junior standing, or consent of instructor.
Typically Offered: Spring

KINES 375 Practicum in Physical Education Credits: 3
Provide opportunities for the physical education student to develop competencies in the teaching skills necessary to provide quality Physical Education to children and youth. Students will receive individualized feedback about their performance from the cooperating teacher and the university supervisor. The course will also provide a forum for students to learn from their peers through discussions, sharing their experiences and knowledge gained from their practicum placement. Prereq: KINES 371, KINES 372, KINES 373
Typically Offered: Fall, Spring

KINES 390 Principles of Exercise Leadership Credits: 2
Introduction to the design of individual and group exercise programs utilized in fitness leadership roles. Supervised practical experience will be provided in class to assist the development of student leadership skills. Prereq: Kines 314 & Anat 329, kines major or cons inst
Typically Offered: Fall, Spring

KINES 399 Independent Study Credits: 1 - 3
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

KINES 400 Organization and Administration of Athletic Training Programs Credits: 3
Principles of organizational theory and administrative practice as they apply to athletic training and sports medicine programs. Emphasis on developing knowledge and skills needed for entry-level professionals in the athletic training field. Prereq: Kines 358 or cons inst
Typically Offered: Spring

KINES 412 Organization and Administration of Physical Education Credits: 2
The presentation of materials and depth study of the organization and administration of a sound program of physical education, the knowledge of which is mandatory for all physical education teachers. Prereq: Jr st or cons inst
Typically Offered: Occasionally

KINES 417 Advanced Clinical Assessment Techniques in Athletic Training Credits: 2
Designed to provide students with knowledge and skills in advanced clinical assessment techniques used in the evaluation of injuries, illnesses, and conditions found in physically active populations. Prereq: Kines 317 or cons inst
Typically Offered: Fall

KINES 427 Fitness Testing and Exercise Prescription Credits: 3
Fitness assessment and exercise prescription principles are applied to the health-related fitness components through discussion and lab activities. Prereq: 762-335 Human Physiology
Typically Offered: Spring
KINES 450 Clinical Field Experience in Athletic Training  Credits: 3  
A clinical field placement course for students in the athletic training professional preparation program. Clinical placements under the direction of an AT Program Clinical Preceptor are offered in a variety of clinical settings including intercollegiate, secondary school, and private clinical settings. Prereq: Declared in Athletic Training  Typically Offered: Fall, Spring

KINES 457 Medical Problems of Exercise and Sports  Credits: 3  
Responses of the human body to exercise and sports with specific discussion of acute and chronic medical problems which may affect performance. Emphasis on cardiopulmonary, metabolic, nutritional, fluid-electrolyte, heat-temperature regulation. Prereq: Athletic training area of conc or cons inst  
General Education: COM B  Typically Offered: Spring

KINES 462 Methods of Teaching Secondary Physical Education  Credits: 3  
Designed to help students understand teaching methods at the secondary level. There will be opportunities to visit middle and high schools for observation and practice teaching. Prereq: Kines 318 or con reg; Kines 361; Curric 378; PEC classification or cons inst  
Typically Offered: Spring

KINES 475 Seminar in Athletic Training  Credits: 1  
An advanced undergraduate seminar for students in the athletic training professional preparation program. Research trends, evidence-based clinical practice, transition to practice, and current issues in the field of athletic training are emphasized. Prereq: Enrolled in the BS-Athletic Training program.  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

KINES 478 Elementary School Physical Education Student Teaching  Credits: 2 - 8  
Prereq: Adv reg in stdt tchg ofc, 109 Educ  
Typically Offered: Fall, Spring

KINES 479 Middle School or High School Physical Education Student Teaching  Credits: 2 - 8  
Prereq: Adv reg in stdt tchg ofc, 109 Educ  
Typically Offered: Fall, Spring

KINES 501 Health Information for Teachers  Credits: 3  
Basic scientific health knowledge and its application to the total school program. Prereq: Junior standing or consent of instructor  
Typically Offered: Fall, Spring

KINES 508 Workshop in Kinesiology  Credits: 1 - 3  
Prereq: Grad st or cons inst  
Typically Offered: Fall, Spring, Summer

KINES 516 Physical Activity for Diverse Abilities  Credits: 3  
Students will develop knowledge and skills necessary to provide meaningful and inclusive physical activity for diverse abilities across the life-span. Prereq: ANATOMY 328, major in Kinesiology, or consent of instructor  
Typically Offered: Fall, Summer

KINES 521 Physical Activity and Health  Credits: 3  
Research evidence regarding how physical activity and fitness are related to health (e.g., during pregnancy and aging) and disease, especially cardiovascular diseases, obesity, diabetes, osteoporosis, and cancer. Application and communication of knowledge in practical situations. Prereq: Kines 314 or cons inst  
General Education: COM B  Typically Offered: Fall

KINES 523 Clinical Exercise Testing & Training  Credits: 3  
Physiological basis and methods of human exercise testing and training. Topics: clinical exercise physiology, exercise testing protocols, cardiopulmonary monitoring, basic ECG interpretation, exercise prescription. Prereq: Kines 314 or cons inst  
Typically Offered: Fall, Spring, Summer
KINES 525 Nutrition in Physical Activity and Health Credits: 3
The purpose of this course is to provide undergraduate and graduate students with both scientific knowledge and application of nutrition related to exercise, health, and sports. Prereq: Admission to Kinesiology (Athletic Training, Exercise and Movement Science, or Physical Education Teacher Education) or Nutritional Science major and Physiology 335
Typically Offered: Fall, Spring, Summer

KINES 527 Principles of Strength and Conditioning Credits: 3
Present/discuss the scientific basis and current practices of strength and conditioning for athletic performance. Training program design and training methods, for performance enhancement, related to the areas of strength, power, speed, and endurance. Prereq: Admission to Athletic Training, Exercise and Movement Science or Physical Education Teacher Preparation Program, 742-314 - or consent of instructor
Typically Offered: Spring

KINES 531 Neural Control of Movement Credits: 3
Intermediate course on neuronal circuits and neurophysiological mechanisms involved in the control of human motor behavior. Including discussion of: 1) sensorimotor integration, 2) interactions between spinal, brainstem, and cerebral cortical levels of control, and 3) how motor control knowledge is created and evaluated. Prereq: College anatomy and physiology; major in kinesiology or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

KINES 541 Organization and Administration of School Health Programs Credits: 3
Theory, philosophy, patterns, and responsibilities. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

KINES 542 Teacher Education About Alcohol and Other Drugs Credits: 3
Social and cultural factors which influence the use and abuse of alcohol and other selected psychoactive drugs. Emphasis on educational concepts and processes important for instructional planning, curriculum strategies, value clarification, evaluation of learning, and countermeasure research developments. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

KINES 561 Teacher Education in Human Sexuality Credits: 3
Student teachers plan educational experiences through which children and youth can learn about human potential in sexuality. Prereq: Curric 501; admission to certificate program in elementary or secondary education or consent of instructor
Typically Offered: Fall, Spring, Summer

KINES 567 Issues, Materials and Methods in Health Education Credits: 3
Principles, materials, and methods. Prereq: Curric 501, 541, 542, & 561 or consent of instructor
Typically Offered: Fall, Spring, Summer

KINES 590 Current Topics in Kinesiology Credits: 1 - 3
Typically Offered: Fall, Spring, Summer

KINES 600 Advanced Exercise Psychology Credits: 3
Exercise and performance examined from the standpoint of motivation, personality dynamics, psychophysics, mental health, social psychology, and behavioral medicine. Prereq: Grad st or cons inst
General Education: COM B  Typically Offered: Fall

KINES 614 Biological Factors Influencing Exercise Performance Credits: 3
Exploration of selected factors relative to performance and exercise physiology: e.g., ergogenic aids, nutritional factors, gender and age of the athlete, and long term competitive events. Prereq: Kines 314, kines major or cons inst
Typically Offered: Fall

KINES 615 Laboratory Techniques in Exercise Physiology Credits: 2
Laboratory procedures and skills commonly used in exercise physiology. Prereq: Kines 314, kines major or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
KINES 618 Biomechanics Credits: 2 - 3
Biomechanics of human movement and skill with emphasis on kinematics and kinetics. Prereq: Kines 218, Anat 329, or cons inst
L&S Breadth: Biological Science   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Spring

KINES 690 Internship in Kinesiology Credits: 3 - 6
Integrated learning from didactic courses in an approved supervisor setting such as a research laboratory or a health and fitness facility. Students will assume responsibilities that are consistent with their level of professional development and learning experiences. Prereq: Consent of instructor
Typically Offered: Fall, Spring

KINES 699 Independent Study Credits: 1 - 3
Prereq: Kines major & Sr st & cons inst
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

KINES 700 Psychological Effects of Exercise Credits: 3
Consequences of involvement in acute and chronic exercise on selected psychological states such as anxiety, depression, hostility, and self-esteem. Prereq: Kines 600 or cons inst
Typically Offered: Occasionally

KINES 713 Neural Basis of Normal and Pathological Movement Credits: 3
In-depth look at anatomic, neurophysiological, behavioral, and clinical aspects of motor control under normal and pathological conditions. Movement disorders include sensory neuropathy, cerebral cortical or brain stem stroke, basal ganglia dysfunction, and cerebellar disease. Prereq: Graduate or professional standing
Typically Offered: Occasionally

KINES 721 Neural Basis for Movement Credits: 3
How the central nervous system organizes skilled human performance. Evolution of neuromuscular mechanisms, suberving skills, and the causes and limitations of movement at high speeds and high levels of force. Prereq: Neuroanatomy or neurophysiology or physiological psychology
Typically Offered: Occasionally

KINES 773 Cardiorespiratory Adaptions to Environment and Exercise Credits: 3
Examination of the effects of acute and chronic exercise and exposure to hypo- and hyperbaric environments on physiological responses; mechanisms underlying these responses. Prereq: Physiol 720 or cons inst
Typically Offered: Occasionally

KINES 774 Metabolic Responses to Exercise and Environmental Stress Credits: 2
Examination of the metabolic and biochemical responses to acute and chronic exercise and environmental stress. Emphasis placed on the mechanisms underlying these responses. Prereq: Physiol 720 or cons inst
Typically Offered: Occasionally

KINES 779 Human Muscle Function in Health and Disease Credits: 2
Multidisciplinary seminar on human muscle function in health and disease. The course is geared toward advanced undergraduate and graduate students in kinesiology, physical and occupational therapy, motor control and behavior, neurophysiology resident in neurology and other related allied health professionals. Prereq: Cons inst
Typically Offered: Occasionally

KINES 785 Human Occupation and Health Credits: 2 - 3
This course focuses on the nature of human occupation (everyday purposeful activity) and its relationship to well-being and health. Theories of occupation and health are critically examined. Prereq: Graduate or professional standing
Typically Offered: Occasionally

KINES 791 Physical Activity Epidemiology Credits: 3
Recommendations for and surveillance of physical activity in the U.S., and associations with health and disease at the population level. Emphasis on measurement techniques, study design and research considerations. Prereq: Grad st or cons inst
Typically Offered: Occasionally
KINES 800 Seminar-Exercise Psychology Credits: 2
Research oriented developments in exercise psychology. Prereq: Grad st
Typically Offered: Occasionally

KINES 861 Principles of Motor Control and Learning Credits: 3
Theories and experimental findings in motor control, acquisition and retention of motor behavior. Topics: attention, models of motor control, kinesthesia, learning, information processing, memory, transfer, feedback, age and gender differences. Prereq: Kines 361 or cons inst
Typically Offered: Occasionally

KINES 885 Seminar in Occupation and Health Credits: 1
This seminar will focus on current theoretical and methodological issues and problems within the study of human occupation and health. Prereq: Grad st or cons inst
Typically Offered: Occasionally

KINES 900 Seminar in Kinesiology Credits: 1
This course provides a forum for students, faculty and staff from the department of kinesiology to present and discuss research and current issues related to the field of kinesiology. Prereq: Grad st or cons inst
Typically Offered: Occasionally

KINES 951 Seminar-Biomechanics Credits: 2
Prereq: Cons inst
Typically Offered: Occasionally

KINES 953 Human Biodynamics Seminar Credits: 1
Prereq: Kines 753 or cons inst
Typically Offered: Occasionally

KINES 955 Seminar - Physical Activity Epidemiology Credits: 1
Current research developments in physical activity epidemiology. Prereq: Grad st or cons inst
Typically Offered: Occasionally

KINES 961 Seminar in Motor Control and Learning Credits: 2
Prereq: Kines 861 or cons inst
Typically Offered: Occasionally

KINES 990 Research or Thesis Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

KINES 991 Research in Physical Activity- Theory and Design Credits: 3
Basic principles of scientific inquiry and their application to the study of physical activity. Prereq: Stat 301, or Ed Psych 561, or equiv, or cons inst
Typically Offered: Occasionally

KINES 999 Independent Reading Credits: 1 - 4
Prereq: Grad st
Typically Offered: Occasionally

OCCUPATIONAL THER (DEPT-KINES)

OCC THER 100 Orientation to Occupational Therapy Credits: 1
An opportunity to explore occupational therapy as a potential career; introduction to the general concepts of human occupation and adaptation; survey of OT practice settings and clinical groups. Prereq: Open to Freshmen
Typically Offered: Fall, Spring
OCC THER 517 Digital Health: Information and Technologies Supporting Consumers and Patients
Credits: 3
This course is appropriate for undergraduate or graduate students considering careers in the health or allied health professions, service professions, and the social services, particularly those concerned with the medically under served and members of racial/ethnic/socioeconomic minority groups. This course covers topics within the US context including: the identification of appropriate and accurate materials for consumer health and family education; the ethical and organizational policy issues that arise when providing consumer and family health information in different settings; the role of the public media in disseminating health information; the health-related information needs and prefe
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

OCC THER 610 Professional Skills I: Professional Practice in Occupational Therapy Credits: 2
The nature of professionalism and the development of the profession of occupational therapy; professional ethics; settings in which occupational therapists practice; the therapeutic process including principles of testing and measurement and documentation as these relate to occupational therapy practice. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Fall

OCC THER 611 Professional Skills II: Communication & Interpersonal Skills in OT Credits: 2
Communication with clients in occupational therapy, collaboration with other professionals about patient care and communicating with the public about occupational therapy; group dynamics and functional groups in occupational therapy; issues of culture and difference related to occupational therapy practice. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Spring

OCC THER 612 Professional Skills III: Organization and Management in OT Practice Credits: 3
Principles and practices of organization and management and their application in both traditional and innovative occupational therapy practice settings. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Fall

OCC THER 613 Professional Skills IV: Community-based OT Practice Credits: 2
Knowledge and skills related to the practice of occupational therapy in innovative practice settings including occupation-based program planning and grant writing. Offered during the final semester on campus, also addresses issues related to career development in occupational therapy. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Spring

OCC THER 620 Occupational-based Theory and Practice Credits: 2
Theories of human occupation. Research related to the form, function, and meaning of daily occupations for the individual and society. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Fall

OCC THER 621 Assessment of Occupational Participation Credits: 3
Skills required for assessment of occupational participation in various settings including the demands inherent in occupations, an individual's capacity to participate in the occupation, and environmental factors constraining and supporting participation. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Fall

OCC THER 622 Infant and Childhood Occupations and Therapeutic Interventions Credits: 4
Current research, theory, and core concepts relating to the therapeutic use of occupations to facilitate participation of children with disabilities and their families in everyday routines within their communities. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Spring

OCC THER 623 Adolescent and Young Adult Occupations and Therapeutic Interventions Credits: 4
Theoretical foundations of occupational science related to occupational participation typically encountered during the adolescent and young adult years including the development of occupational engagement, conditions that may disrupt occupational roles, assessment, and therapeutic intervention processes. Prereq: Current enr in MS in occ ther or cons inst
Typically Offered: Fall
OCC THER 624 Middle and Late Adulthood Occupations and Therapeutic Interventions Credits: 4
Theoretical foundations of occupational science as related to occupational participation typically encountered during the middle and late adulthood including the development of occupational engagement, conditions that may disrupt occupational roles, assessment, and therapeutic intervention processes. Prereq: Current enrll in MS in occ ther or cons inst
Typically Offered: Spring

OCC THER 625 Level-I Fieldwork: Infants and Children Credits: 1
Supervised clinical experience involving occupational therapy practice with children; companion course to Ther Sci 622. Prereq: Current enrll in MS in occ ther or cons inst
Typically Offered: Spring

OCC THER 626 Level-I Fieldwork: Adolescents and Young Adults Credits: 1
Supervised clinical experience involving occupational therapy practice with adolescents and young adults; companion course to Ther Sci 623. Prereq: Current enrll in MS in occ ther or cons inst
Typically Offered: Fall

OCC THER 627 Level-I Fieldwork: Middle and Late Adulthood Credits: 1
Supervised clinical experience involving occupational therapy practice with adults and elders; companion course to Ther Sci 624. Prereq: Current enrll in MS in occ ther or cons inst
Typically Offered: Spring

OCC THER 629 Medical Lectures for Occupational Therapy Credits: 2
The study of medical and surgical management of individuals with a variety of orthopedic and neurological conditions relevant to occupational therapy practice. Lectures are presented by UW Hospital medical staff and occupational therapists experienced in the treatment of these conditions. Prereq: Anatomy 622; current enrll in MS in occ ther prgm or cons inst
Typically Offered: Spring

OCC THER 640 Applied Neuroanatomy for Allied Health Professionals Credits: 3
Overview of neuroanatomical structures relevant for students in allied health professional training who work with clinical populations. The anatomical regions deemed most significant to practice, given current understandings of the brain and its function, will be explored. The primary focus is on the anatomical regions, neurophysiology, and resultant observable phenomenology related to human function as well as practical clinical application and current research findings. Prereq: Graduate or professional standing
Typically Offered: Fall

OCC THER 662 Level II Fieldwork A Credits: 6
The first of two twelve-week, full-time supervised experiences of applied occupational therapy practice. Student conducts evaluations and provides treatment under supervision for an assigned caseload in an approved practice setting. The student begins Level II fieldwork after all academic coursework has been successfully completed. Prereq: Ther Sci 648, 649 & cons inst
Typically Offered: Fall, Spring, Summer

OCC THER 664 Level II Fieldwork B Credits: 6
The second of two twelve-week, full-time supervised experiences of applied occupational therapy practice. Student conducts evaluations and provides treatment under supervision for an assigned caseload in an approved practice setting. The student begins Level II fieldwork after all academic coursework has been successfully completed. Prereq: Ther Sci 640, 641 & cons inst
Typically Offered: Fall, Spring, Summer

OCC THER 671 Scientific Inquiry in OT I: Evidence-Based Practice Credits: 2
Addresses the role of evidence in supporting occupational therapy practice. Covers the concepts, methods, and strategies related to evidence-based practice. The goal is to encourage the development of critical reading and writing skills. Prereq: Current enrll in MS in occ ther prgm or cons inst
Typically Offered: Fall

OCC THER 672 Scientific Inquiry in Occupational Therapy II: Research Design and Methods Credits: 2
Supports the generation and use of evidence in occupational therapy practice. The course provides an overview of research design with particular relevance to understanding human occupation and the practice of occupational therapy. Prereq: Current enrll in MS in occ ther prgm or cons inst
Typically Offered: Spring
OCC THER 673 Scientific Inquiry in OT III: Data Collection and Analysis. Credits: 3
Supports the development of a research proposal and the skills needed to implement a research project. Through a series of lectures, discussions, and lab activities students are guided through the development of a research proposal and analysis of data. Prereq: Current enrollment in MS in occupational therapy program or consent of instructor
Typically Offered: Fall

OCC THER 674 Scientific Inquiry in OT IV: Scientific Writing for Publication Credits: 2
Students complete a research project proposed in the previous course. Emphasis is on interpretation and dissemination of findings and contributing to the evidence for practice via development of a final paper and a poster presentation. Prereq: Current enrollment in MS in occupational therapy program or consent of instructor
Typically Offered: Spring

OCC THER 811 Applied Leadership and Management in OT Credits: 3
Overview of the historical, theoretical and current practices of leadership, management and advocacy in health care, education and social service settings. Course will include a reflective analysis of the student's own leadership and management style. Students will apply key principles of effective networking, collaboration and interdisciplinary practice to further develop their own leadership competencies. Prereq: Graduate or professional standing
Typically Offered: Fall

OCC THER 812 Current Trends Shaping Occupational Therapy Practice Credits: 3
Occupational therapy's role in the history and continuing evolution of health care, education, and social welfare. Discussion of the theoretical, evidence, and policy trends influencing occupational therapy practice across settings. The course will emphasize development of leadership skills for shaping, advocating and guiding occupational therapy through a continually evolving practice landscape. Prereq: Graduate or professional standing
Typically Offered: Spring

OCC THER 890 Inter-Professional Development for Leadership Credits: 1 - 3
Course content designed specific to student's curriculum plan to enhance knowledge of occupational therapy in global arenas, across service delivery systems and in inter-professional contexts. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring, Summer

REHAB PSYCH & SPECIAL EDUC

RP & SE 200 Issues in Special Education Credits: 3
Designed for students interested in learning about special education, particularly careers in this field. Course will provide information on the history and evolution of special education and special educators' roles. Prereq: Only students with Freshman or Sophomore standing may enroll
Typically Offered: Fall, Spring

RP & SE 300 Individuals with Disabilities Credits: 3
An overview of the characteristics and problems of exceptional children and youth. Definition and classification systems, etiology of handicapping conditions, educational services, and adult adjustment. Current controversies and future trends. Prereq: Open to Freshmen
Typically Offered: Fall, Spring, Summer

RP & SE 330 Behavior Analysis: Applications to Persons with Disabilities Credits: 3
Children with exceptional learning and behavior characteristics (contrasting views and practices); a humanistic behavioral approach; development and evaluation of behavior change programs, classification and foundations of exceptional learning and behavior characteristics, and facilitating behavior change in different settings. Prereq: RP & SE 300 & SPE or RPS or PSR
Typically Offered: Fall, Spring

RP & SE 365 Teaching Mathematics in Inclusive Settings Credits: 4
Designed to introduce preservice teachers to a variety of approaches for teaching mathematics to students in inclusive schools. Prereq: Admission to certification program or consent of instructor
Typically Offered: Spring
RP & SE 401 Augmentative and Alternative Communication and Assistive Technology for Students with Disabilities Credits: 1
Covers theoretical foundations for the assessment and selection of assistive technology and augmentative and alternative communication (AAC) for students with significant disabilities. Prereq: Admission to certification program or consent of instructor
Typically Offered: Spring

RP & SE 402 Methods in Teaching Functional Skills Credits: 1
Applies knowledge and skills for functional assessment and applied behavior analysis in the design and implementation of an individualized, functional curriculum for students with moderate to profound intellectual disabilities and autism spectrum disorders. Prereq: RP&SE 300 & admission to certification program or consent of instructor
Typically Offered: Fall

RP & SE 403 Promoting Adolescent Literacy for Students with Disabilities Credits: 1
Designed to prepare future special educators to plan and provide language and reading instruction to adolescents with disabilities. Prereq: RP&SE 300 and RP&SE 465 or consent of instructor
Typically Offered: Fall

RP & SE 404 Methods in Teaching Science & Social Studies for Students with Disabilities Credits: 1
Prepares future special educators to plan and provide Science and Social Studies instruction to a broad range of students with disabilities. Prereq: RP&SE 300 and admission to certification program or consent of instructor
Typically Offered: Spring

RP & SE 405 Current Topics in Special Education Credits: 1
Explores current issues, topics, and trends in special education. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

RP & SE 450 Collaborating with Families of Individuals with Disabilities Credits: 3
The impact of disability on families; collaborative approaches to involving families in service planning. Prereq: RP&SE 300 & Jr st
Typically Offered: Spring, Summer

RP & SE 457 Elementary Student Teaching Seminar - Elementary/Special Education Dual Major Credits: 1
Course addresses professionalism, research and problem solving, assessment, and collaborative skills relevant to the elementary and special education student teaching placement for students in the Elementary/Special Education Dual Major degree program. Prereq: Declared in Elementary Education program
Typically Offered: Spring

RP & SE 464 Diagnosis, Assessment, and Instructional Planning in Special Education Credits: 4
Introduction to assessment terms and tools used to assist in the identification and diagnosis of students with disabilities; provide the skills necessary to collect and use assessment data to promote the successful outcomes in core academic instruction for students with disabilities. Prereq: RP & SE 300 & admission to cert program or cons inst
Typically Offered: Fall

RP & SE 465 Language and Reading Instruction for Students with Disabilities Credits: 4
Designed to prepare future special educators to plan and provide language and reading instruction to a broad range of students with disabilities. Prereq: RPSE 300 and admission to certification program or consent of instructor
General Education: COM B Typically Offered: Spring

RP & SE 466 Diversity in Special Education Credits: 3
Introductory overview of special education for culturally and linguistically diverse (CLD) learners with disabilities. Prereq: RP & SE 300 or cons inst
Typically Offered: Fall

RP & SE 467 Elementary Student Teaching Seminar Credits: 2
Course addresses professionalism, research and problem solving, assessment, and collaborative skills relevant to the elementary special education student teaching placement. Prereq: Admission to certification program, concurrent registration in RP&SE 477 or consent of instructor
Typically Offered: Fall
**RP & SE 468 Secondary Student Teaching Seminar** Credits: 2  
Course addresses professionalism, research and problem solving, assessment, and collaborative skills relevant to the secondary special education student teaching placement. Prereq: Admission to certification program, consent of instructor, or concurrent registration in RP&SE 478  
Typically Offered: Spring

**RP & SE 469 Academic Instruction: Learning and Behavioral Disabilities** Credits: 3  
Features of effective academic instruction for students with learning and behavioral disabilities. Applications to reading, language, writing, spelling, mathematics, science, and social studies instruction. Phonemic awareness and phonics instruction included. Prereq: RP & SE 300 & 330 or cons inst  
Typically Offered: Fall, Summer

**RP & SE 470 Individuals with Learning and Behavioral Disabilities** Credits: 3  
Provides basic and comprehensive information about biological, educational, sociological, cultural, economic and legal phenomena that impinge upon individuals with a wide array of learning and behavioral disabilities. Prereq: RP & SE 300, So st or cons inst  
Typically Offered: Fall, Summer

**RP & SE 471 Methods and Curriculum: Learning and Behavioral Disabilities, K-9** Credits: 3  
Individualized educational planning in academic, social-emotional and behavioral areas for students with learning and behavioral disabilities, grades kindergarten through nine. Philosophy and content based on application of theory-to-practice and empirical techniques. Prereq: RP & SE 469, 470, admission to cert prog & con reg in 475  
Typically Offered: Fall

**RP & SE 472 Methods in Transition and Vocational Education** Credits: 3  
Provides information and methods necessary to provide individualized programming in transition and vocational education for students with disabilities, grades six through twelve. Prereq: RPSE 300 and admission to the SE certificate program or consent of instructor  
Typically Offered: Fall, Spring

**RP & SE 473 Management: Students with Learning and Behavioral Disabilities** Credits: 3  
Topics and issues regarding the educational management of students with learning and behavioral disabilities in grades kindergarten through twelve. Prereq: RP & SE 469, 470 & admission to cert prog  
Typically Offered: Fall, Spring

**RP & SE 474 Diagnosis and Assessment: Learning and Behavioral Disabilities** Credits: 3  
Educational evaluation, including participation in Multi-Disciplinary Team planning and curriculum based assessment of pupils with learning and behavioral disabilities in grades kindergarten through twelve. Prereq: RP & SE 471 or 472 & admission to cert prog  
Typically Offered: Fall, Spring

**RP & SE 475 Special Education Practicum: Middle Childhood - Early Adolescence** Credits: 3 - 6  
Practicum teaching in an approved placement with a qualified cooperating teacher serving students with disabilities in any of grades K-8, supervised by a qualified university supervisor. Placement schedule determined by course instructor. Prereq: Admission to Special Education certificate program and consent of department  
Typically Offered: Fall, Spring

**RP & SE 476 Practicum: Students with Learning and Behavioral Disabilities, 6-12** Credits: 5 - 7  
A minimum of 225 hours per semester required. An approved placement with a qualified cooperating teacher and supervised by a teacher certified in special education (intellectual disabilities, behavioral/emotional disabilities, learning disabilities). Approved placement for students in grades six through twelve. Prereq: RP & SE 469, 470, admission to cert prog & con reg in 472  
Typically Offered: Fall, Spring

**RP & SE 477 Special Education Student Teaching: Middle Childhood - Early Adolescence** Credits: 6 - 12  
Full time student teaching in an approved placement with a qualified cooperating teacher serving students with disabilities in any of grades K-8, supervised by a qualified university supervisor. Placement schedule follows the host school district calendar. Prereq: Admission to Special Education certificate program  
Typically Offered: Fall, Spring
RP & SE 478 Special Education Student Teaching: Early Adolescence - Adolescence Credits: 6 - 12
Full time student teaching in an approved placement with a qualified cooperating teacher serving students with
disabilities in any of grades 6-12, supervised by a qualified university supervisor. Placement schedule follows the
host school district calendar. Prereq: Admission to Special Education certificate program
Typically Offered: Fall, Spring

RP & SE 479 Language and Reading Instruction: Learning & Behavioral Disabilities Credits: 3
Specific methods, strategies, and procedures for assessing and teaching reading and language skills to students
with learning and behavioral disabilities. Covers methods of teaching phonemic awareness, phonics, fluency,
vocabulary, and text comprehension. Prereq: RP & SE 469
General Education: COM B  Typically Offered: Spring, Summer

RP & SE 500 Rehabilitation-Counseling Psychology: Foundations Credits: 3
History, philosophy, principles, legislation, and development of vocational rehabilitation; organizational structure
and objectives of the principal community agencies. Prereq: None
Typically Offered: Fall

RP & SE 501 Rehabilitation-Counseling Psychology: Applications Credits: 3
Introduction to rehabilitation and human service programs for people with disabilities and other special needs.
Emphasis on communication relevant to professional service, particularly writing. Prereq: Con reg in RP&SE 630
for 3 cr
General Education:  COM B  Typically Offered: Fall, Spring

RP & SE 505 Biological, Psychosocial, and Vocational Aspects of Disabilities Credits: 3
This course will provide students with an overview of disabilities with an emphasis on biological, psychosocial,
and vocational aspects. Prereq:  RP&SE 300 & SPE or RPS or PSR
Typically Offered: Fall, Summer

RP & SE 506 Strategies for Inclusive Schooling Credits: 3
Comparison of historical and current practices in special education; legal, philosophical, and programmatic
changes leading to inclusive models of education; emphasis on concepts of collaboration, cooperative learning
structures, and curricular and instructional adaptations to accommodate learners with disabilities in general
education classrooms. Prereq:  So st
Typically Offered: Fall, Spring, Summer

RP & SE 540 Assessment of Adults with Disabilities Credits: 3
Assesses the vocational status and potential of people who have disabilities, with paper and pencil and
situational-performance tests. Prereq:  Cons inst
Typically Offered: Fall

RP & SE 550 Rehabilitation Psychology-Medical Aspects Credits: 2 - 3
Medical and psychiatric care and rehabilitation; physical restoration; etiology, prognosis and therapy of common
disabling conditions.
Typically Offered: Spring

RP & SE 560 Psychosocial Aspects of Chronic Illness and Disability Credits: 3
Provides a Bio-psycho-social approach to the dynamics of coping and adjustment to disability and chronic illness
and investigates the effects of prevailing societal attitudes towards persons with disabilities and strategies for
attitude change. Prereq:  Cons inst
Typically Offered: Fall

RP & SE 630 Internship in Rehabilitation or Special Education Credits: 2 - 6
Practicum experience in state or community agencies or in public school programs serving individuals with
physical, cognitive, emotional, learning, social or behavioral problems. Prereq:  Cons inst
Typically Offered: Fall, Spring, Summer

RP & SE 660 Special Topics Credits: 1 - 6
An individualized approach in a variety of settings to learning problems encountered by those working with the
atypical. Prereq:  Cons inst
Typically Offered: Fall, Spring, Summer
RP & SE 690 Research or Thesis Credits: 1 - 3  
Prereq: Masters stdts cons inst  
Typically Offered: Fall, Spring, Summer

RP & SE 699 Independent Reading Credits: 1 - 3  
Prereq: Cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

RP & SE 700 Seminar: Rehabilitation Psychology Research Credits: 2 - 3  
Continuing seminar for students in rehabilitation counseling; methods, research information, dissemination, and/or thesis development. May be repeated for credit. Prereq: Cons inst  
Typically Offered: Occasionally

RP & SE 710 Multicultural Issues in Special Education Credits: 3  
This course is designed to engage participants in an exploration and discussion of issues and trends in special education as relates to the diversity of populations, based on race/ethnicity, socioeconomic backgrounds, disability label, gender, language dominance, etc., receiving special education. Prereq: Grad st or cons inst  
Typically Offered: Fall, Spring, Summer

RP & SE 715 Equity and Full Participation for Individuals with Significant Disabilities Credits: 3  
Analysis of historical and contemporary trends and issues pertaining to persons with significant disabilities (i.e., significant intellectual disability, multiple disabilities, and autism spectrum disorder) across the lifespan. Topics include: an overview of the field of significant disabilities, historical trends, and current directions in curriculum design for students with significant disabilities, and valued outcomes for persons with significant disabilities. Prereq: Declared in Special Education or Rehabilitation Psychology graduate program  
Typically Offered: Fall

RP & SE 719 Introduction to Qualitative Research Credits: 3  
Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prereq: Grad st  
Typically Offered: Occasionally

RP & SE 721 Addictions Counseling Credits: 3  
This course provides an overview of evidence-based practices and common practices for the treatment of addiction disorders. Emphasis is placed on training of the interventions used in the treatment of substance abuse and dependence. Prereq: Declared in a Special Education or Rehabilitation Psychology graduate program  
Typically Offered: Spring

RP & SE 725 Career Counseling and Job Placement for People with Disabilities Credits: 3  
Basic aspects of career development and job placement for people with disabilities. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

RP & SE 729 Advanced Social Psychology Credits: 3  
Intensive examination of theoretical conceptions in contemporary social psychology, including learning-theoretic, reinforcement, incentive, cognitive, and psychodynamic approaches, and research in selected topic areas reflecting these approaches, such as aggression, attitude formation and change, conformity, limitation and modeling, interpersonal attraction, perception of others, prosocial behavior, and social influence. Prereq: Grad st or Sr st and cons inst  
Typically Offered: Occasionally

RP & SE 730 Professional Counseling Orientation Credits: 3  
Provides a broad understanding of professional counselor roles and functions. Also provides a broad understanding of the ethical and legal standards for professional counselors. Students will familiarize themselves with the ACA Code of Ethics, as well as with credentialing standards and organizations relevant to the practice of mental health counseling. Prereq: Declared in a Rehabilitation Psychology or Counseling Psychology graduate program  
Typically Offered: Fall, Spring, Summer
RP & SE 735 Legal and Ethical Bases of Counseling and Psychology Credits: 3
Legal and ethical issues for psychologists, with an emphasis on the APA ethics code and Wisconsin statutes relevant to psychological research and practice. Prereq: Graduate or professional standing
Typically Offered: Fall

RP & SE 736 Seminar in Psychology of Individual Differences Credits: 3
Graduate-level seminar in the psychology of individual differences, providing broad and general coverage of theory and research related to individual and cultural differences. Prereq: Graduate or professional standing
Typically Offered: Fall

RP & SE 737 Seminar in History and Systems of Psychology Credits: 3
Graduate-level seminar in the history of psychology, providing broad and general coverage of the development of psychology as a scientific discipline. Includes coverage of philosophy of science and systems of psychological inquiry, with applications to current research in psychology. Prereq: Graduate or professional standing
Typically Offered: Summer

RP & SE 741 Computer Software and Qualitative Data Analysis Credits: 3
This course is designed to provide students opportunity to gain knowledge and skill for coding and analyzing qualitative data using NVivo, a qualitative analysis software package. Qualitative data includes audio, video, and visual artifacts and representations collected and created through interviews, document reviews, memos, and observation. It is a lab course; therefore, students bring their own data and work through analytic exercises following an individualized path to assignment completion. Readings and discussions will focus on epistemic perspective and analysis. Prereq: RPSE 788 and RPSE 789 or consent of instructor
Typically Offered: Summer

RP & SE 777 Educating Students in Alternative Settings Credits: 3
Examines influences on the provision of high quality educational services to students who are confined, committed or selectively placed in alternative settings. For the purpose of this course, alternative settings will be defined as juvenile correctional facilities, day treatment and residential schools, and other non-traditional special schools for students with emotional and behavioral needs. Theoretical and historical perspectives on the role of educators and academic instruction in alternative settings will also be explored. Prereq: Graduate or professional standing
Typically Offered: Fall

RP & SE 788 Qualitative Research Methods in Education: Field Methods I Credits: 3
Introductory field methods experience in qualitative research. Students will learn to define good research questions, determine which methods of data collection and analysis are useful for addressing those questions, engage in these methods, reflect on their utility in education research. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 719 or cons inst
Typically Offered: Spring

RP & SE 789 Qualitative Research Methods in Education: Field Methods II Credits: 3
Focus on data analysis and translation of finds and implications. Students will gain theoretical and practical knowledge and skills regarding coding and analysis techniques, use of qualitative analytic tools, strategies for sharing findings with audiences beyond research team. Prereq: Coun Psy/Curric/ELPA/Ed Pol/Ed Psych/RP & SE 788
Typically Offered: Spring

RP & SE 801 Research, Policies and Practices in Special Education Credits: 3
Issues, research and theory in the education of individuals with disabilities. Advanced technical writing and reporting. Prereq: Post masters st & cons inst
Typically Offered: Occasionally

RP & SE 802 Specialized Studies of Individuals with Disabilities Credits: 3
Links among research, theory and practice in relation to major contemporary issues. Prereq: Post masters st & cons inst. Part of initial 2 crse requirement in spec educ doctoral study, 801-802
Typically Offered: Occasionally

RP & SE 803 Current Issues in Special Education Credits: 1
Required of all full-time graduate students in special education; student research and current topics of special interest. Prereq: Req of all full-time Ph.D. stdts in spec ed
Typically Offered: Occasionally
RP & SE 810 Rehabilitation Counseling Psychology-Techniques Credits: 2 - 3
Counseling tools and techniques as used in the rehabilitation process with disabled or disadvantaged persons; use of counseling theory and techniques, diagnostic procedures and the decision-making process, and relationships within a multi-disciplinary team. Prereq: Graduate or professional standing
Typically Offered: Occasionally

RP & SE 820 Rehabilitation Counseling Psychology-Theories and Issues Credits: 2 - 3
Theoretical bases of counseling and related individualized procedures used in rehabilitation counseling; relevance for professional practice with physically, mentally and culturally handicapped persons; evaluation of related research. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 835 Leadership for Inclusive Schooling Credits: 3
Examines historical and organizational context of special education administration at the federal, state and local levels. Includes policy implementation, constituency management, coordination, communication, and current issues. Prereq: ELPA 702 & 735
Typically Offered: Occasionally

RP & SE 840 Rehabilitation Counseling Psychology-Group Procedures Credits: 3
Theory, technique, and supervised practice in conducting group counseling and related procedures with persons with physical and mental handicaps. Prereq: Crses in counseling thry & tech & cons inst
Typically Offered: Occasionally

RP & SE 850 Consultation Procedures for Counselors Credits: 3
A systematic investigation of and the application of consultation procedures for counselors in educational, community, and rehabilitative agencies. Consultation as applied with individuals and organizational structures. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 860 Rehabilitation Counseling Psychology-Clinical Practice Seminar Credits: 1
Concurrent seminar for clinical practice students in 880, 890, and 900 or 910. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 870 Seminar: Assessment in Rehabilitation Psychology Credits: 3
Evaluation of current literature related to theory, models, methods and practice in assessment. Prereq: Ed Psych 370, 371, & 372, or RP & SE 340, or equiv, & ED Psych 561, or Psych 615, or equiv, or written cons inst
Typically Offered: Occasionally

RP & SE 871 Foundations of Special Education Credits: 3
This course is designed to engage participants in a critical exploration of Special Education issues and trends as located in social, cultural, philosophical, and historical contexts. Prereq: Graduate or professional standing
Typically Offered: Fall

RP & SE 872 Seminar in Special Education Research Credits: 3
This course is designed to equip students with the knowledge and skills necessary to be thoughtful critically consumers and producers of education and special education research. The course is designed to: (a) provide students with an overview of the variety of research methods and approaches typically used in special education and the utility of these methods and approaches in addressing educational problems and issues; (b) prepare students to critically appraise published peer-reviewed research in special education; (c) allow students to develop the skills necessary to summarize, synthesize and expand upon research already conducted on topics of personal and professional relevance; and (d)
Typically Offered: Spring

RP & SE 873 Professional Development for Future Special Education Researchers and Faculty in Higher Education Credits: 1
The purpose of this course is to provide students with information and professional development on careers in academia. This repeatable course is designed for students to take multiple times to correspond to their developmental needs and professional development interests. Prereq: Graduate student; RPSE 871
Typically Offered: Fall, Spring

RP & SE 880 Rehabilitation Counseling Psychology-Supervised Practicum I Credits: 2 - 3
Practical experience in counseling handicapped persons. Prereq: Cons inst
Typically Offered: Occasionally
RP & SE 890 Rehabilitation Counseling Psychology-Supervised Practicum II Credits: 2 - 3
Practical experience in counseling handicapped persons. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 900 Rehabilitation Counseling Psychology-Supervised Practicum III Credits: 2 - 3
Practical experience in counseling handicapped persons. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 903 Psychosocial Theory and Research in Rehabilitation Psychology Credits: 3 - 6
Review of theory and research. Prereq: Cons inst or RP & SE 801 & RP & SE 802
Typically Offered: Occasionally

RP & SE 910 Rehabilitation Counseling Psychology-Internship Credits: 6 - 12
Full-time supervised experience in a rehabilitation setting. Activities include: the work of the counselor on the job; the work of the counselor educator in supervision; research activity; counselor coordinator on the job. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 920 Rehabilitation Counseling Psychology-Counseling Supervision Credits: 1 - 3
Clinical experience with concurrent instruction in the supervision of rehabilitation counseling practicum students; participation in practicum seminar of master's students. May be repeated for credit. Prereq: Cons inst
Typically Offered: Occasionally

Field work in therapeutic intervention, organization and administration, and clinical needs assessment within various special education service delivery settings. Opportunity to relate relevant theoretical backgrounds to clinical organization and field problems. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 925 Seminar in Counseling Psychology Credits: 3
History, ethical and professional issues and problems, and current status of the psychological specialty of counseling psychology. Prereq: Couns psych or rehab psych & special ed majors or cons inst
Typically Offered: Occasionally

RP & SE 930 Rehabilitation Counseling Psychology-Practice Teaching Credits: 1 - 3
Supervised experience in teaching activities with concurrent instruction. May be repeated for credit. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 940 Rehabilitation Counseling Psychology-Supervised Research Credits: 1 - 3
Supervised practicum participation in a rehabilitation research project. May be repeated for credit. Prereq: Cons inst, only doctoral stdts
Typically Offered: Occasionally

RP & SE 941 Internship: Research Credits: 1 - 3
Supervised participation in conducting, evaluation, and reporting university level research. May be repeated for credit. Prereq: Cons inst
Typically Offered: Occasionally

RP & SE 944 Internship Preparation Credits: 1
Primary goal of this course is to help students in Counseling Psychology, Rehabilitation Psychology & Special Education, and the School Psychology Program prepare for their internship by providing recourses, guidelines, and support in selecting and applying to internship sites. Prereq: Dissertator status in the department
Typically Offered: Fall

RP & SE 980 Adult Cognitive Assessment Credits: 3
Administration, scoring and interpretation of measures of adult intelligence; introduction to neurophychological and other cognitive assessment approaches; discussion of issues and applications in rehabilitation practice. Prereq: Cons inst, Ph D stdts only, course in tests and measurement
Typically Offered: Occasionally
RP & SE 983 Seminar: Professional Issues in Rehabilitation Psychology Credits: 3 - 6
Historical development of rehabilitation programming and the professional specialties of rehabilitation psychology; basic philosophy, theoretical systems and processes; professional and scientific ethics; and other professional issues. Prereq: Grad st, cons inst
Typically Offered: Occasionally

RP & SE 984 Seminar: Principles of Behavior Change in Rehabilitation Psychology Credits: 3 - 6
Theories and principles underlying individual and group methods of management, education, and rehabilitation of handicapped individuals; assessment of methods as related to acquisition of new skills or modification of ineffective behavior; problems in the application of methods in the home, school, institutional, and work settings; unique considerations for specific handicapping conditions. Prereq: Grad st and cons inst
Typically Offered: Occasionally

RP & SE 985 Individuals with Disabilities: Advanced Research Methodologies Credits: 3
Prereq: Cons inst, Grad st, 2 crses in stats, 1 crse in measurement
Typically Offered: Occasionally

RP & SE 990 Research or Thesis Credits: 1 - 3
Prereq: Cons inst (PhD stdts)
Typically Offered: Occasionally

RP & SE 995 Predoctoral Internship Credits: 0
Registration for Ph.D. students who have successfully defended the dissertation and are in the process of completing the required predoctoral internship. Prereq: Successful dissertation defense
Typically Offered: Fall, Spring, Summer

RP & SE 999 Independent Reading Credits: 1 - 3
Prereq: Cons inst (PhD stdts)
Typically Offered: Occasionally

THEATRE AND DRAMA

THEATRE 120 Introduction to Theatre and Dramatic Literature Credits: 3 - 4
Reading important plays, attending stage productions, writing and thinking critically about theatre and drama. Emphasis on developing analytic skills in dramatic literature and theatre production. 4-credit option requires additional writing. Prereq: Open to Fr. 4 cr sections meet Com B requirement
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 140 Voice Training Credits: 3
Correct use of breath, note, tone and word relating to actors' and speakers' function. Concentration on individual minor speech problems. Prereq: So st or cons inst
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 150 Introduction to Acting Credits: 3
Action, voice and analysis of character for portrayal of realistic roles. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 160 Introduction to Stage Production Credits: 3
Scenery, costumes, lighting, sound, and stage management in stage production. Emphasis on interrelationship between technical and artistic components of production process. Lectures and practical experience in two lab areas for University Theatre productions. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 161 Backstage Laboratory I Credits: 2
Weekly labs and specified performance assignment in which students learn through practical participation in University Theatre productions; lab choices include scenery and costume construction, lighting, and sound. Prereq: Open to all Undergrads
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
THEATRE  162 Theatre Production Laboratory  Credits: 1  
Participation in University Theatre performance in various capacities including light or sound console operator, wardrobe, properties, carpentry, or other areas. Technical rehearsal and performance attendance mandatory.  
Prereq: Theatre 160 or cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

THEATRE  199 Directed Study  Credits: 1 - 3  
Prereq: Graded on a lettered basis. Open to Fr & So. Cons inst req  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE  218 African Dance Performance  Credits: 2  
Technique, practice and performance of complex African and African-based dances in relation to polyrhythmic musical and percussive accompaniment. Study of historical and cultural contexts of these forms. Development of improvisational skills in dialogue with musicians.  
Prereq: Dance 118 or consent of instructor  
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE  219 Undergraduate Topics in Theatre and Drama  Credits: 1 - 3  
Undergraduate study in subjects of current interest in design, performance, technology, history, dramatic theory, literature criticism, or theatre/drama education.  
Prereq: Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE  224 History of Theatrical Production  Credits: 3  
Examines key periods in theatre history from ancient to modern. Emphasis on staging practices and theatre as a cultural institution.  
Prereq: So st, Theatre 120 or cons inst  
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

THEATRE  240 Intermediate Voice Training  Credits: 3  
Techniques and practice for increasing vocal strength, range, flexibility and the study of diction. Attention to individual problems in tone production, resonance, and articulation.  
Prereq: Theatre 140 or cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE  250 Fundamentals of Acting  Credits: 3  
Students focus on developing fundamental acting techniques (voice, characterization, physicality) and learn to apply skills in individual performance and scene study of contemporary dramatic texts.  
Prereq: Theatre 150 & cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE  259 Collaborative Arts Performance Lab: Devising Collaborative Performance through Hip Hop Arts  Credits: 1 - 2  
Collaborative Arts Performance Lab is a unique course where students work together to create a repertory company which produces performances of short hip hop theater and other collaborative performance art works for public viewing. It is a creative workshop space where experimental works are researched and developed. These workshops are open to all First Wave students, including Freshmen, and will involve the development of collaborative and small group pieces as well as artistic training with a focus on individual and multi-voice work, theater improvisation, dance/movement.  
Prereq: None  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

THEATRE  263 Fundamentals of Costumes Technology  Credits: 3 - 4  
Theory and techniques of costume construction for theatrical production. Lab required for 4th credit.  
Prereq: Theatre 160 or cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

THEATRE  266 Fundamentals of Stage Lighting Technology  Credits: 3  
Theories and techniques for the use of stage lighting equipment, special effects, and other stage electrics devices.  
Prereq: Open to all Undergrads  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE  270 Fundamentals of Stagecraft  Credits: 3 - 4  
Theory and techniques of stagecraft for theatrical production. Lab required.  
Prereq: Open to all Undergrads  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
THEATRE 298 Directed Study Credits: 1 - 3
Prereq: Graded on a Cr/N basis; So st and requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 299 Directed Study Credits: 1 - 3
Prereq: Graded on a lettered basis; So st & requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 321 Javanese Performance Credits: 2
Technique and practice of classical Javanese dance in its musical, historical and cultural contexts. Prereq: Junior standing or consent of instructor
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

THEATRE 324 Traditions in Dramatic Literature Credits: 3
Multiple approaches to reading plays from a variety of important periods in dramatic literature with an emphasis on the life of older plays in the contemporary repertory. When possible, some course materials are linked to University Theatre production. Prereq: So st, Theatre 120 or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 326 Introduction to Asian Performance Credits: 3 - 4
Issues in the study of Asian performance. Principal genres of Asian performance through study of techniques and aesthetics, and plays; East West theatre relationships. Prereq: Jr st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 327 History of Costume for the Stage Credits: 3
Dress in Western civilization is examined through the cultural context of history, art and fashion and related to theatrical costume design through a comparison of theatre designs to their primary visual sources. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

THEATRE 329 Introduction to African-American Performance Credits: 3 - 4
Introduction to historical, social and political contexts of African-American artistic expression in theatre and performance. Offers critical analyses of theatre, films, and/or dance forms that reflect cultural values, ideologies and performance aesthetics rooted in African-American and West African traditions. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 335 In Translation: The Drama of Henrik Ibsen Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 336 In Translation: The Drama of August Strindberg Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 342 Fundamentals of Movement for the Stage Credits: 1 - 3
Development of the actor's awareness of habitual patterns of tension. Elements of movement including space, time, energy. Introduction to improvisation skills. Prereq: Cons inst. Repeatable with cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

THEATRE 348 In Translation: Modern Indian Theatre Credits: 3
Study of drama, dramatic theory, and performance in modern India. Course considers interpenetration of Indian and Western systems of dramaturgy, relation between colonial and postcolonial institutions, socio-cultural and political contexts, and major modern dramatic genres. Prereq: Junior standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 349 In Translation: Modern Scandinavian Drama Credits: 4
Examination of the theater of Scandinavia in the wake of Henrik Ibsen and August Strindberg that places modern Nordic theater in a wider European context. Prereq: Jr st
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
THEATRE  350 Acting Realism  Credits:  3  
Intensive scene study from the major works of selected modern playwrights, concentrating on realism.  Prereq:  Theatre 250, 140 and cons inst  
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

THEATRE  351 Fundamentals of Asian Stage Discipline  Credits:  3  
Intensive movement discipline using Asian martial art techniques and mask work as a preparation for performance.  Prereq:  Cons inst  
L&S Breadth:  Humanities  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

THEATRE  357 Introduction to Theatre for Cultural and Social Awareness  Credits:  3  
Analysis of sensitive subject matter in U.S. workplace and school/community settings through theatre and drama. Examines race relations, cultural diversity, gender, sexual orientation and other topics in plays, films, and current events. Develops theatrical models to encourage healthy dialogue. Prereq:  So st  
Ethnic Studies:  Yes  L&S Breadth:  Humanities  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

THEATRE  361 Backstage Laboratory II  Credits:  1 - 2  
Emphasis on student's involvement with a specific responsibility within theatrical production.  Prereq:  Theatre 161 or cons inst  
L&S Breadth:  Humanities  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

THEATRE  362 Drama for Teaching and Learning  Credits:  3  
This is a methods course useful for all involved in teaching and learning, including foreign languages. Introduction to philosophy, methodology, and practice of the use of drama and performance techniques in any educational or recreational settings. Focus on creativity and embodied and contextual learning, based on current neurological, psychological, and sociological research. A practical class which includes demonstration and practice with children.  Prereq:  So st  
L&S Breadth:  Humanities  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

THEATRE  363 Principles and Practice of Stage Costume Design  Credits:  3 - 4  
A survey of stage costume combined in a lecture/laboratory framework. Fundamentals inherent in costume design process; introduction to procedures and skills needed for executing costumes. Prereq:  So st  
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

THEATRE  364 Makeup for the Theatre  Credits:  3  
An introduction to makeup design for the theater. Students learn the aesthetics of makeup, color theory, and the technical aspects of applying makeup. Topics include the importance of developing a character through makeup, techniques of physically applying makeup to the actor and special effects makeup such as old age and prosthetic makeup appliances. At the end of the course, students are able to research and identify elements of creating a character through makeup and the application of stage makeup to an actor in order to create a character for the stage.  Prereq:  Sophomore standing  
Typically Offered:  Fall

THEATRE  365 Sewing for the Theatre  Credits:  3  
Intermediate sewing techniques used to create theatrical garments will be taught and practiced.  Prereq:  Theatre 160  
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

THEATRE  366 Stage Lighting I  Credits:  3 - 4  
Application of lighting design to the stage and natural environment. Color principles, lighting instruments, and control equipment. Production participation and labs. Prereq:  So st  
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

THEATRE  368 Fundamentals of Directing  Credits:  3  
Principles and practice of play direction; motivational analysis, composition, movement, stage business and rehearsal techniques. Student directs a final project.  Prereq:  Jr st  
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall
THEATRE 370 **Drafting for the Theatre** Credits: 3 - 4
Methods and development of techniques used in theatrical drafting. Prereq: Theatre 160 & So st; or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

THEATRE 371 **Sound for Theatre** Credits: 3 - 4
Audio equipment and its use in the theatre; the integration of sound as a design element of live theatrical performance. Prereq: Open to all Undergrads
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 372 **Set Design I** Credits: 3
Principles of composition, scale, perspective, and color applied to the stage; production of ground plans, elevations, sketches, and models. Prereq: Theoretical 363 or 366 or 372 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

THEATRE 374 **Rendering for the Stage** Credits: 3
A practical study of drawing, painting, and sketching techniques applied specifically to the presentation of set, costume, and lighting designs on paper. Prereq: Theatre 363 or 366 or 372 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 379 **Introduction to Stage Management** Credits: 3
Principles of stage management from auditions through closing night. Class work and supplementary production experience. Prereq: Theatre 160 or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 415 **Introduction to Contemporary Feminist Theatre and Criticism** Credits: 3
Introduction to the history, literature and theory of feminist theatre and of feminist criticism of mainstream theatre in the United States from 1960 to the present. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 420 **Theatre and Society** Credits: 3
Analysis of the ideological and cultural meanings in Western theatre from the perspectives of gender, race, ethnicity, and sexual identity. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 421 **Javanese Performance Repertory** Credits: 2
Introduction to Javanese theatre performance in a Javanese epic tradition. Includes use of Javanese gamelan music as accompaniment for dance drama. Prereq: None
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

THEATRE 423 **In Translation: Slavic Drama in Context** Credits: 3
Slavic playwrights and the European tradition of theatre and drama. Prereq: Sr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 424 **Contemporary World Theatre and Dramatic Literature** Credits: 3
Considers important current trends in performance and dramatic literature worldwide. Writing component includes both literary and performance criticism. When possible, some course maaterials are linked to University Theatre productions. Prereq: Jr st, Theatre 224 & 324
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 426 **History, Theory, and Dramatic Criticism in Theatre for Young Audiences** Credits: 3 - 4
Historiographical perspectives in theatre for young audiences; analysis of plays for young people, theoretical implications, assumptions, current developments. Prereq: Theatre 120 or 160 or 200 or 362 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 431 **History of Theatres and Staging** Credits: 3
Theatre architecture, scenery, costume, acting, directing, and modes of staging in Europe from 500 B.C. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
THEATRE 440 Musical Performance for the Actor Credits: 3
Styles and genres of the modern American and British musical theatre for performers. Their application to audition
techniques and scene/song presentations. Prereq: Jr st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 450 Acting Styles Credits: 1 - 3
Study and demonstration of the various acting styles from the Greek to the modern. Concentration on two specific
styles in a semester. Prereq: Theatre 250, 350, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 462 Theatre for Young Audiences: Production Credits: 3 - 6
A practical class: preparation and performance of a production for young audiences, with development and
implementation of accompanying educational material. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

THEATRE 464 Costume Technology Topics Credits: 3 - 4
Examines techniques used to create costumes. Rotating topics including draping, period patternmaking, tailoring,
crafts, and painting. Lab required for 4th credit. Prereq: Theatre 163 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

THEATRE 466 Stage Lighting Design II Credits: 3 - 4
Detailed study of lighting design techniques and professional practices for commercial and resident theatres.
Prereq: Theatre 366 & either Theatre 370 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

THEATRE 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of
department
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

THEATRE 470 Fundamentals of Technical Direction Credits: 3
Organizational and planning responsibilities of the performing arts technical director. Estimating, scheduling,
purchasing, safety, materials, resources, organizational structures. Prereq: Theatre 170 or equiv & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 471 Stage Properties Credits: 3
Materials, processes and organizational techniques commonly used in the fabrication of stage properties.
Prereq: Theatre 170, 370, 372 or equiv
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 472 Scenic Painting Credits: 3
Painting scenery for the stage. Techniques for painting drops, flats, and props in a range of illusion effects.
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 477 Diaspora and Theatre Credits: 3
Study of the drama and theatre of a variety of immigrant communities in three Western locations: Britain, the
United States, and Canada. Course focuses on current theories of diaspora and transnationalism, the place of
theatre in diasporic writing, and the literary, performative, and material dimensions of the genre. Prereq: Sophomore Standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

THEATRE 501 The Business of Acting Credits: 3
Teaches actors the vital, non-performance skills and knowledge needed to launch professional acting careers.
Knowledge of self-promoting, marketing, unions, networking, headshot/resumes, agents, casting directors, trade
publications, and more will empower the actor and ease their transition into the professional world. Prereq: Junior standing and THEATRE 150 or COM ARTS 260
Typically Offered: Every Other Fall
THEATRE 521 The Pre-Modern Drama of Europe: 1650-1850 Credits: 3
Plays and essays from the European repertoire (England, France, Germany, Spain, Russia, Italy) prior to the rise of Realism and representing several theatrical forms (new-classicism, romantism) and including such playwrights as Wycherley, Behn, Congreve, Racine, Moliere, Beaumarchais, Schiller, Goethe, Kleist, Lope de Vega, Calderon, Ostrovsky, Goldoni, etc. Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 522 Experimental Drama: The Theatre of Europe 1850-the Present Credits: 3
The development of realistic and postrealistic forms in modern and postmodern drama, from Zola, Ibsen, Strindberg, and Chekhov through futurism, expressionism, Dada, and surrealism, Brecht, the Theatre of the Absurd, and contemporary European theatre. Prereq: Theatre 362 or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 525 Theatre in Education Credits: 3 - 4
Theory and practice of theatre in elementary and secondary educational settings. Students in this course devise, script, and present programs as actor-teachers and interact with audiences. Prereq: So st & cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 526 The Theatres of China and Japan Credits: 3
An advanced study of the theatres of China and Japan in relation to aesthetics and form. Prereq: Theatre 326 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 532 History of Russian Theatre Credits: 3
The history of Russian theatre and related arts (including opera and ballet) with emphasis on performance history. Prereq: Jr st
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 534 American Drama and Theatre to 1900 Credits: 3
Significant American plays, playwrights and modes of theatrical production during the eighteenth and nineteenth centuries, with attention to the theatre as a force in a developing national culture. Prereq: Junior standing
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 539 The Folklore of Festivals and Celebrations Credits: 3
Survey of interdisciplinary literature on social/performative folklore aesthetics and environments by in-depth study of three festivals and ceremonies. Required field trips. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 541 Acting Shakespeare Credits: 1 - 3
Studio presentation of Shakespearean drama with emphasis on language and verse structure; techniques for enhancing performances skills. Prereq: Theatre 240, 350 and cons inst. Repeatable with cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 550 Advanced Scene Study Credits: 1 - 3
Intensive scene study from the major works of selected modern playwrights. Prereq: Theatre 250, 350 and instructor consent. Repeatable with instructor consent
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

THEATRE 557 Advanced Theatre for Cultural and Social Awareness Credits: 3
Practical implementation of theories and skills developed in Theatre 357. Students participate in training engagements addressing issues of sensitive subject matter (race relations, cultural diversity, gender, sexual orientation) for U.S. businesses, organizations, and schools. Prereq: Theatre 357 or cons inst
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

THEATRE 561 Backstage Laboratory III Credits: 1 - 2
Emphasis on fulfilling one major assignment in theatre performance or production situation such as actor, stage manager, master carpenter, wardrobe master, properties master. Prereq: Theatre 361 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

THEATRE 562 Drama in Education: Advanced Studies Credits: 3 - 4
Advanced studies in theories and practices of drama in education. Prereq: Theatre 362 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
THEATRE 563 Costume Design II Credits: 3
Problems in use of line, form, color, texture, and movement in the design of costumes for the stage. Class projects include investigation into classical and contemporary drama. Prereq: Grad st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

THEATRE 568 Directing Lab Credits: 3
Analysis, conceptualization and rehearsal of a play culminating in a performance presented for an audience. Prereq: Theatre 368 & cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 570 Advanced Stagecraft Credits: 3
An intensive study of stage rigging, scenic locomotion, set construction and structural analysis techniques. Prereq: Theatre 160, Theatre 370 or equiv, or cons inst; may be taken concurrent with 370
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 571 Scenery Automation-Mechanics Credits: 1 - 3
Metalworking, automation and plastics forming as applied to scenery construction. Health and safety considerations are explored in each subject area. Prereq: High school level algebra and basic trigonometry
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 572 Set Design II Credits: 3
Historical survey of visual theatre, painting, and architectural styles adapted to various dramatic forms. Application of design elements and styles to contemporary theatre productions. Prereq: Theatre 372 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 575 British Drama, 1914 to Present Credits: 3
Plays and playwrights from the first World War to the present, including movements leading to the "revolt" of 1956 and subsequent proletarian and absurdist drama. Plays by Shaw, O'Casey, Maugham, Coward, Eliot, Osborne, Beckett, Pinter, Stoppard, Arden, Wesker, Bond, Churchill and others. Prereq: Junior standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 576 Survey: Theories of Drama Credits: 3
Selected major critical and theoretical sources, from Aristotle to the present day; the influences of theories upon playwriting and modes of theatrical production. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 577 Postcolonial Theatre: Drama, Theory and Performance in the Global South Credits: 3
Study of drama, dramatic theory and theatrical practices in postcolonial cultures, primarily in Asia, Africa and the Caribbean. Course considers status of drama/theatre in postcolonial studies and focuses on issues of form, language, intertextuality, trans-culturation, material organization and reception. Prereq: Junior standing or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 578 Modern American Drama and Theatre Credits: 3
Representative twentieth-century plays from Glaspell and O'Neill to the present considered within contemporary cultural, theatrical and academic context. Prereq: Junior standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 579 Advanced Concepts in Stage Management Credits: 2
Advanced study of organizational behaviors, theatre infrastructures, styles & communication techniques in relation to Stage Management. Prereq: So st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

THEATRE 595 Topics in Theatre and Drama: Study Abroad Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad progrm
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
THEATRE 619 Special Topics in Theatre and Drama Credits: 1 - 3
Specialized subjects of current interest in design, performance, technology, history, dramatic theory, literature criticism, and theatre/drama education. Prereq: Junior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 631 Theories of Acting Credits: 3
Interdisciplinary and cross-cultural seminar on the historical, cultural, performative, aesthetic, and ideological construction of acting on stage. Prereq: Sr st, Grad st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 661 Advanced Production Practicum Credits: 1 - 3
Provides students the opportunity to apply their knowledge in a production setting. Enrollment is limited to designated Dramaturg, Lighting Designer, Costume Designer, Set Designer, Technical Director, Assistant Dramaturg, Assistant Designers, or Assistant Technical Director on a season production for the University Theatre. Prereq: Cons Inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 670 Advanced Study in Theatre Design and Technology Credits: 4
In-depth study of theories, skill, and issues in set, costume, and lighting design and theatre technology. Meets with Graduate Core Curriculum. Rotating topics. Prereq: Jr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

THEATRE 681 Senior Honors Thesis Credits: 3
Prereq: Sr st & written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 682 Senior Honors Thesis Credits: 3
Prereq: Theatre 681 & written consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 691 Senior Thesis Credits: 2 - 3
Prereq: Sr st & 3.25 GPA and written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 692 Senior Thesis Credits: 2 - 3
Prereq: Theatre 691 & written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 698 Directed Study Credits: 1 - 6
Cr/N. Prereq: Graded on a cr/n basis; Jr or Sr st and requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 699 Directed Study Credits: 1 - 6
Prereq: Graded on a lettered basis; Jr or Sr st & requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

THEATRE 731 Advanced Theatre History 500 BC to 1700 Credits: 3
Problems of scholarship in the dramatic, performance and staging practices of major traditions of world theatre history between 500 BCE and 1700 including the theatres of ancient Greece and Rome; medieval, Renaissance and early modern Europe; and the Muromachi and Tokugawa eras in Japan. Prereq: Graduate standing
Typically Offered: Occasionally

THEATRE 732 Advanced Theatre History 1700 to Present Credits: 3
Problems of scholarship in the dramatic, performance and staging practices of major traditions of world theatre history since 1700, including melodrama, naturalism, the avant-garde, and other movements that helped shaped contemporary theatre. Prereq: Graduate standing
Typically Offered: Occasionally

THEATRE 740 Voice Training Credits: 3
Principles of voice and speech for the actor. Prereq: Graduate standing and consent of instructor
Typically Offered: Occasionally
THEATRE  742 Graduate Stage Movement  Credits: 3  
Advanced study of processes, styles and techniques of stage movement. Individual and group projects.  Prereq:  Grad st & cons inst  
Typically Offered:  Occasionally

THEATRE  750 Graduate Acting  Credits: 1 - 3  
Advanced study of process and technique in acting. Individual and group projects.  Prereq:  Graduate standing & consent of instructor. Repeatable with consent of instructor  
Typically Offered:  Occasionally

THEATRE  763 Costume Design III  Credits: 3  
Advanced problems in costume design for the stage.  Prereq:  Graduate standing & Theatre & Drama 563 or consent of instructor  
Typically Offered:  Occasionally

THEATRE  768 Advanced Problems in Directing  Credits: 3  
Special directing challenges, e.g., musical theatre, new work and adaptation development, performance styles, multimedia challenges.  Prereq:  Theatre & Drama 568, & consent of instructor  
Typically Offered:  Occasionally

THEATRE  770 Advanced Theatre Technology  Credits: 3  
Detailed study of research and practice in the physical theatre and its scenic devices.  Prereq:  Consent of instructor and Graduate standing  
Typically Offered:  Occasionally

THEATRE  799 Independent Study  Credits: 1 - 6  
Prereq:  Graduate standing and consent of instructor  
Typically Offered:  Occasionally

THEATRE  822 Shakespeare Seminar: Theory and Practice  Credits: 3  
Selected Shakespearean texts examined in the light of contemporary critical theories and the application of those theories to the possibilities for staging.  Prereq:  Graduate standing  
Typically Offered:  Occasionally

THEATRE  911 Seminar-Problems in Theatre and Drama  Credits: 2 - 3  
Topics variable.  Prereq:  Graduate standing  
Typically Offered:  Occasionally

THEATRE  939 Special Topics-Performance Theory and Criticism  Credits: 3  
Theoretical and critical methods, from traditional to contemporary, that elucidate past and present dramatic forms and practices.  Prereq:  Graduate standing  
Typically Offered:  Occasionally

THEATRE  970 Collaborative Design & Technology Studio  Credits: 3  
Graduate seminar focused on providing advanced students in design and technology opportunities to collaborate on projects within the classroom.  Prereq:  Graduate standing and consent of instructor  
Typically Offered:  Spring

THEATRE  972 Seminar-Advanced Problems in Stage Design  Credits: 3  
Prereq:  Graduate standing and consent of instructor  
Typically Offered:  Occasionally

THEATRE  990 Research and Thesis  Credits: 1 - 9  
Independent research and writing under the supervision of a staff member.  Prereq:  Grad st & written cons inst  
Typically Offered:  Occasionally

THEATRE  999 Independent Study  Credits: 1 - 3  
Independent pursuit of a creative project designed by the student and supervised by a staff member.  Prereq:  Grad st & written cons inst  
Typically Offered:  Occasionally

THERAPEUTIC SCI (DEPT-KINES)
THER SCI 105 Health Care Systems: Interdisciplinary Approach Credits: 2
Introduction to health care systems. Factors affecting health and the value placed on health, the delivery of health care in different settings, the roles of various health workers, and the sociological and economic aspects of health care. Prereq: Open to all undergrads
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
COLLEGE OF ENGINEERING

BIOMEDICAL ENGINEERING

B ME 1 Cooperative Education Program Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students
with a background upon which to base a professional career in industry. Prereq: So st
Typically Offered: Fall, Spring, Summer

B ME 200 Biomedical Engineering Design Credits: 1
Students will work in a team on a client-centered biomedical engineering design project to learn concept
generation, product analysis, specifications, evaluation, clinical trials, regulation, liability, and ethics. Prereq: So
st in biomedical engineering
Typically Offered: Fall

B ME 201 Biomedical Engineering Fundamentals and Design Credits: 2
Fundamentals of biomedical engineering and principles of design. Hands-on skills including computer-aided
design, machining, and fabrication of a physical medical device prototype. Prereq: Sophomore standing in
biomedical engineering
Typically Offered: Spring

B ME 300 Biomedical Engineering Design Credits: 1
Students will work in a team on a client-centered biomedical engineering design project to learn concept
generation, product analysis, specifications, evaluation, clinical trials, regulation, liability, and ethics. Prereq: BME 201, & 315 or con reg
Typically Offered: Fall

B ME 301 Biomedical Engineering Design Credits: 1
Students will work in a team on a client-centered biomedical engineering design project to learn concept
generation, product analysis, specifications, evaluation, clinical trials, regulation, liability, and ethics. Prereq: Jr
st in biomed engr, BME 430 or con reg
Typically Offered: Spring

B ME 310 Bioinstrumentation Credits: 3
A sophomore level first course in bioinstrumentation covering clinical and research measurements. Laboratory
experiments complement the lectures. Prereq: Chem 109 or (Chem 103 and Chem 104); Physics 202 or
Physics 208; Math 234 or concurrent registration. Open only to students in the BME program or consent of
instructor
Typically Offered: Spring

B ME 315 Biomechanics Credits: 3
This course will provide an introduction to the mechanical behavior of biological tissues and systems. Specific
topics include: structure and function of biological tissues, mechanical properties of biological tissues, and
analysis of specific tissues (i.e. bone, muscle, and soft connective tissues). Prereq: Math 234; Physics 202 or
Physics 208; EMA 303 or ME 306. Open only to students in the BME program or consent of instructor
Typically Offered: Fall

B ME 320 Introductory Transport Phenomena Credits: 4
Mass, momentum, and energy transport; calculation of transport coefficients; solution to problems in viscous flow,
heat conduction, and diffusion; dimensional analysis; mass, momentum, and heat transfer coefficients; over-all
balances; elementary applications. Prereq: Physics 201, Math 319 or 320, CBE 250 with grade of C or better; or
consent of instructor
Typically Offered: Fall, Spring
B M E 389 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Not available for graduate credit.
Prereq: Admission to BME Undergraduate Honors in Research Program
Typically Offered: Fall, Spring, Summer

B M E 399 Independent Study Credits: 1 - 3
Prereq: So st in biomedical engineering & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

B M E 400 Capstone Design Course in Biomedical Engineering Credits: 3
This capstone course applies classroom study to solve a directed client-based biomedical engineering design project. Prereq: BME 301, 310, 315, 430, Sr st in biomed engr or cons inst
Typically Offered: Fall

B M E 402 Biomedical Engineering Design Credits: 1
Students work in a team to evaluate, refine, document and orally present a client-centered biomedical engineering design completed in capstone design course. Prereq: BME 400, Sr st in biomed engr or cons inst
Typically Offered: Spring

B M E 415 Biomechanics of Human Movement Credits: 3
An overview of experimental and modeling techniques used to study human movement. Specific topics will include locomotion, motion capture systems, force plates, muscle mechanics, musculoskeletal modeling, three dimensional kinematics, inverse dynamics, forward dynamic simulation and imaging based biomechanics. Homework and laboratory activities will be conducted that emphasize applications of movement biomechanics in orthopedics and rehabilitation. The course will culminate in a class project related to each student's research interests. Prereq: Senior or graduate standing, ME 240, ME 340, BME 315
Typically Offered: Fall

B M E 430 Biological Interactions with Materials Credits: 3
This course addresses the range of materials currently being utilized for various biomedical applications, the biological systems governing biomaterial applications, analytical techniques pertinent to biomaterial evaluation, and selected major medical applications in which biomaterials play an important role. Prereq: 1 yr of general biol or two semesters of zool, & 1 semester of organic chem, or cons inst
Typically Offered: Spring

B M E 461 Mathematical and Computer Modeling of Physiological Systems Credits: 3
Mathematical and computer modeling of physiological systems; principal emphasis on cardiovascular system and individual nerve cells; other topics include respiratory system and skeletal-muscle system; extensive use of "hands-on" computer modeling using ACSL. Prereq: ECE 330 or cons inst
Typically Offered: Spring

B M E 462 Medical Instrumentation Credits: 3
Design and application of electrodes, biopotential amplifiers, biosensors, therapeutic devices. Medical imaging. Electrical safety. Measurement of ventilation, blood pressure and flow. Lecture and lab. Prereq: ECE 342 or cons inst
Typically Offered: Fall

B M E 463 Computers in Medicine Credits: 3
Study of microprocessor-based medical instrumentation. Emphasis on real-time analysis of electrocardiograms. Labs and programming project involve design of biomedical digital signal processing algorithms. Prereq: ECE 330, Comp Sci 302
Typically Offered: Fall

B M E 489 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Not available for graduate credit.
Prereq: Admission to BME Undergraduate Honors in Research Program
Typically Offered: Fall, Spring, Summer

B M E 501 Radiological Physics and Dosimetry Credits: 3
Interactions and energy deposition by ionizing radiation in matter; concepts, quantities and units in radiological physics; principles and methods of radiation dosimetry. Prereq: Calculus and modern physics
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
**B ME 505 Biofluidics** Credits: 3  
Introduction to blood rheology, blood flow dynamics in arteries, capillaries and veins, airflow in the lungs, and other physiological flow phenomena. Healthy and diseased states will be considered. Special topics may include ocular flow dynamics and electro-chemical-fluidics in cartilage.  
Prereq: EMA 201; EMA 202 or ME 240; Physiol 335; or cons inst  
Typically Offered: Spring

**B ME 510 Introduction to Tissue Engineering** Credits: 3  
Overview of tissue engineering, including discussion of cell sources, cell-material interactions, tailoring biomaterials, methods of culture and characterization of engineering tissues, ethical issues, concluding with case studies of specific types of tissue engineering. Optional laboratory exercises offered throughout semester.  
Prereq: BME 430 or equiv, or cons inst  
Typically Offered: Fall

**B ME 511 Tissue Engineering Laboratory** Credits: 1  
Tissue engineering refers to the generation of biological substitutes to restore, maintain, or improve tissue function. Laboratory techniques are multi-disciplinary, from basic biological sciences, engineering, and biotechnology. Engineering approaches and analysis will be applied to theses techniques.  
Prereq: BME 510 con reg or consent of instructor  
Typically Offered: Fall, Spring

**B ME 515 Therapeutic Medical Devices** Credits: 1  
Design of medical devices to treat pathology. Open to majors in biomedical engineering. One lecture each week.  
Prereq: BME 310, BME 315, Physiol 335. Con reg in BME430  
Typically Offered: Spring

**B ME 517 Biology in Engineering Seminar** Credits: 1  
Current topics at the interface of biology and engineering with special emphasis on the ways in which engineers have contributed to knowledge and advances in biology.  
Prereq: Jr st in engr & one college-level biol crse  
Typically Offered: Fall

**B ME 520 Stem Cell Bioengineering** Credits: 3  
Covers engineering approaches that are used to understand and manipulate stem cells. Concepts covered include: introduction to stem cell biology, quantitative modeling of stem cell signaling, methods to engineer the stem cell microenvironment, and the role of stem cells in tissue development and regeneration.  
Prereq: Math 319 or 320, Zoology 470 or 570, Chem 343, or cons inst  
Typically Offered: Fall

**B ME 530 Medical Imaging Systems** Credits: 3  
2D Fourier image representation, sampling, and image filtering with applications in medical imaging. Principles of operation, impulse responses, signal-to-noise, resolution and design tradeoffs in projection radiography, tomography, nuclear medicine, ultrasound, and magnetic resonance imaging.  
Prereq: ECE 330 or Med Phys 473 or equiv or cons inst. Knowledge of linear signals & systems, convolution, basic probability, ID Fourier Transforms  
Typically Offered: Spring

**B ME 535 Introduction to Energy-Tissue Interactions** Credits: 3  
Explore physical interactions between thermal, electromagnetic and acoustic energies and biological tissues with emphasis on therapeutic medical applications.  
Prereq: Graduate student or senior level in Engineering or Medical Physics or consent of instructor  
Typically Offered: Fall

**B ME 545 Engineering Extracellular Matrices** Credits: 3  
Overview of the structure, function and biophysical properties of extracellular matrix (ECM) proteins, followed by discussion of how control or manipulation of ECM protein expression and distribution impacts on cell and tissue function, concluding with impacts of engineering ECM for regenerative medicine.  
Prereq: Zoology 151 or equiv., BME 430 or equiv. Also recommended: Zoology 570 or equiv., Bmolchem 503 or equiv  
Typically Offered: Spring
B M E 550 Introduction to Biological and Medical Microsystems Credits: 3
Introduces students to the field of MEMS (Micro-Electro-Mechanical-Systems), as it applies to biology and medicine. Topics will cover methodology of traditional MEMS devices, how they can be incorporated with biological systems, and methods for micro-structuring biological materials. Prereq: Zool 152, BME 310, or cons inst
Typically Offered: Fall

B M E 556 Systems Biology: Mammalian Signaling Networks Credits: 3
Introduction to the experimental and mathematical modeling techniques used in systems biology through lectures and critical analyses of relevant publications with a primary focus on gene/protein networks and mammalian systems. Prereq: Zoology 570 or BME 510; and Math 319 or Math 320 or Math 340; or consent of instructor
Typically Offered: Spring

B M E 560 Biochemical Engineering Credits: 3
Properties of biological molecules; enzyme kinetics, enzyme reactors, and enzyme engineering; metabolic engineering; microbial growth kinetics; bioreactor design; bioseparations. Prereq: CBE 310; CBE 320; Zoo 151 or 153; or consent of instructor
Typically Offered: Fall

B M E 566 Physics of Radiotherapy Credits: 4
Ionizing radiation use in radiation therapy to cause controlled biological effects in cancer patients. Physics of the interaction of the various radiation modalities with body-equivalent materials, and physical aspects of clinical applications; lecture and lab. Prereq: Med Phys 501
Typically Offered: Spring

B M E 567 The Physics of Diagnostic Radiology Credits: 4
Physics of x-ray diagnostic procedures and equipment, radiation safety, general imaging considerations; lecture and lab. Prereq: Modern physics, calculus, and Fourier analysis, or consent of instructor
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

B M E 568 Magnetic Resonance Imaging (MRI) Credits: 3
Physics and technology of magnetic resonance imaging (MRI), emphasizing techniques employed in medical diagnostic imaging. Major topics: physics of MR, pulse sequences, hardware, imaging techniques, artifacts, and spectroscopic localization. Prereq: Crses in mod physics & calc, incl Fourier Anal, req. Crses in other med imaging tech e.g. Med Phys 567, & crses in signal processing, or Med Phys 573 recommended
Typically Offered: Spring

B M E 573 Medical Image Science: Mathematical and Conceptual Foundations Credits: 3
The conceptual and mathematical foundations of medical imaging, including both deterministic and stochastic aspects. Prereq: 1 yr each of undergrad physics & calc or cons inst
Typically Offered: Fall

B M E 574 Imagine in Medicine: Applications Credits: 3
Continuation of 573, with application of concepts to practical medical imaging problems and emerging quantitative imaging techniques. Prereq: Med Phs/BME 573 or cons inst
Typically Offered: Spring

B M E 575 Diagnostic Ultrasound Physics Credits: 2 - 3
Propagation of ultrasonic waves in biological tissues; principles of ultrasonic measuring and imaging instrumentation; design and use of currently available tools for performance evaluation of diagnostic instrumentation; biological effects of ultrasound. Prereq: Modern physics, calculus & Fourier analysis or consent of instructor
Typically Offered: Fall
**B M E 578 Non-Ionizing Diagnostic Imaging** Credits: 3
This is a graduate level core course covering the physics associated with magnetic resonance imaging and diagnostic ultrasound emphasizing techniques employed in medical diagnostic imaging. Major MRI topics include: physics of MR, pulse sequences, hardware, imaging techniques, artifacts, and spectroscopic localization. Ultrasound based topics covered include: propagation of ultrasonic waves in biological tissues, principles of ultrasonic measuring and imaging instrumentation, design and use of currently available tools for performance evaluation of diagnostic instrumentation, and biological effects of ultrasound. At the completion of this course, students should have an understanding of the t
Typically Offered: Spring

**B M E 601 Special Topics in Biomedical Engineering** Credits: 1 - 3
Topics vary. Prereq: Grad st or cons inst
Typically Offered: Occasionally

**B M E 603 Topics in Bio-Medical Engineering** Credits: 1 - 3
Various aspects of living systems of interest to the mechanical engineer, such as the mechanics of hearing and vision, cardiac and central nervous systems, artificial organs, blood flow behavior, and energy-transfer processes. Prereq: Consent of instructor
Typically Offered: Occasionally

**B M E 615 Tissue Mechanics** Credits: 3
This course will focus on solid mechanics of prominent musculoskeletal and cardiovascular tissues. Their normal and pathological behaviors (stiffness, strength, relaxation, creep, adaptive remodeling, etc.) in response to physiologic loading will be examined and quantified. Prereq: BME 315 or cons inst
Typically Offered: Fall

**B M E 619 Microscopy of Life** Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**B M E 650 Biological Optical Microscopy** Credits: 3
This course for graduate students will cover several aspects of state of the art biological and biophysical imaging. We will begin with an overview of geometrical optics and optical and fluorescence microscopy, with an emphasis on instrumentation. The bulk of the course will focus on advanced imaging techniques including nonlinear optical processes (multi-photon excitation, second harmonic generation, and stimulated Raman processes) and emerging super-resolution methods. Special emphasis will be given to current imaging literature and experimental design. Prereq: Senior or Graduate standing, and CHEM 104 or 109 or 116 and, PHYSICS 104 or 202 or 208
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

**B M E 662 Design and Human Disability and Aging** Credits: 3
Design of products for persons with physical, sensory or cognitive impairments is covered as well as the design of standard mass market products. Interdisciplinary teams explore specific disabilities, then design a standard mass market product in competition with each other. Prereq: Jr st or cons inst
Typically Offered: Spring

**B M E 699 Advanced Independent Study** Credits: 1 - 5
Under faculty supervision. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**B M E 701 Seminar in Biomedical Engineering** Credits: 0
Speakers present current research, reviews of previous research, or topics of interest to biomedical engineering graduate students and faculty. Prereq: Grad st in biomedical engineering
Typically Offered: Occasionally

**B M E 702 Graduate Cooperative Education Program** Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with a background on which to develop and enhance a professional career. The work experience is tailored for MS students from within the U.S. as well as eligible international students. Prereq: Graduate or professional standing
Typically Offered: Occasionally
B M E 710 Advances in Medical Magnetic Resonance Credits: 3
This course studies in some depth the theory and applications of magnetic resonance (MR) in medicine. It provides the necessary theoretical background to understand advanced MR techniques including magnetic resonance imaging (MRI). Prereq: Med Phys or B M E 568.
Typically Offered: Occasionally

B M E 762 Biomedical Instrumentation Credits: 3
Design and application of specialized biomedical instrumentation. Information retrieval techniques. Lab. Prereq: ECE 462 or cons inst
Typically Offered: Occasionally

B M E 763 Projects in Computers in Medicine Credits: 3
Applications of digital computers to the solution of problems in clinical and research medicine. Hardware and software student projects. Prereq: ECE 463
Typically Offered: Occasionally

B M E 775 Advanced Ultrasound Physics Credits: 3
Foundations of acoustic wave equations, diffraction phenomena and acoustic beam formation, models for acoustic scattering from discrete structures and inhomogeneous continua, speckle statistics including speckle correlation, applications of these topics in medical imaging. Prereq: Med Phys 575, Physics 311, 322, 325, Math 234, or cons inst
Typically Offered: Occasionally

B M E 782 Modeling Biological Systems Credits: 3
Literature survey of mathematical models in biology at the molecular and cellular levels; application of chemical kinetics and thermodynamics to biological systems; comparison of deterministic and stochastic strategies. Prereq: Math 319 or 320 or cons inst
Typically Offered: Occasionally

B M E 783 Design of Biological Molecules Credits: 3
Introduction to the methodologies for engineering the structure and function of biological molecules, especially proteins. Students will develop an understanding for the integration of computation and experiment to address biological molecular engineering problems. Prereq: Biocore 303 or Biochem 501 or Zoology 570; or cons inst
Typically Offered: Occasionally

B M E 790 Master's Research and Thesis Credits: 1 - 9
Under faculty supervision. Prereq: Grad st; for Master's candidates only
Typically Offered: Occasionally

B M E 801 Seminar on Development of Medical Devices and Drugs Credits: 1
This course will give an overview of three major sectors of medical product and technology development including pharmaceuticals, medical devices and combination products. Regulatory framework, disclosure and patenting, technical design and development strategy, academia-specific development challenges will be among the major lecture topics. Prereq: Graduate student or consent of instructor
Typically Offered: Fall

B M E 890 Pre-dissertation Research Credits: 1 - 9
Under faculty supervision. Prereq: Grad st; for pre-dissertators only
Typically Offered: Occasionally

B M E 915 Computation and Informatics in Biology and Medicine Credits: 1
Participants and outside speakers will discuss current research in computation and informatics in biology and medicine. This seminar is required of all CIBM program trainees. Prereq: Cons inst
Typically Offered: Occasionally

B M E 990 Research and Thesis Credits: 1 - 9
Under faculty supervision. Prereq: Dissertator status & cons inst
Typically Offered: Occasionally

B M E 999 Advanced Independent Study Credits: 1 - 9
Under faculty supervision. Prereq: Cons inst
Typically Offered: Occasionally
CBE 1 Cooperative Education Program  Credits: 1  
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career.  Prereq: So st  
Typically Offered: Fall, Spring, Summer

CBE 250 Process Synthesis  Credits: 3  
An introduction to the invention of processes for the large scale, low cost processing of materials such as water, chemicals, petroleum products, food, drugs and wastes. Open to students in any field.  Prereq: Chem 329 or Chem 343 or concurrent registration  
Typically Offered: Fall, Spring

CBE 255 Introduction to Chemical Process Modeling  Credits: 3  
Introduction to modeling of chemical processes and introduction to using modern computational tools to analyze the models.  Prereq: Math 319 or 320 or con reg  
Typically Offered: Fall, Spring

CBE 310 Chemical Process Thermodynamics  Credits: 3  
Introduction to thermodynamics, energy balances, applications to steady state and unsteady state processes, behavior of pure fluids, chemical reaction equilibria.  Prereq: Math 234, Physics 201 or equiv; CBE 255 or equiv or con reg; CBE 250 with a grade of C or better  
Typically Offered: Fall, Spring

CBE 311 Thermodynamics of Mixtures  Credits: 3  
Properties of ideal and non-ideal vapors and liquids, ideal and non-ideal multicomponent vapor-liquid and liquid-liquid equilibria, complex chemical reaction equilibria, electrolytic solutions, surface thermodynamics, solid phase thermodynamics.  Prereq: CBE 310 with a grade of C or better  
Typically Offered: Fall, Spring

CBE 320 Introductory Transport Phenomena  Credits: 4  
Mass, momentum, and energy transport; calculation of transport coefficients; solution to problems in viscous flow, heat conduction, and diffusion; dimensional analysis; mass, momentum, and heat transfer coefficients; over-all balances; elementary applications.  Prereq: Physics 201, Math 319 or 320, CBE 250 with grade of C or better; or consent of instructor  
Typically Offered: Fall, Spring

CBE 324 Transport Phenomena Lab  Credits: 3  
Determination of thermodynamic properties, transport properties, and transfer coefficients; study of related phenomena.  Prereq: CBE 310 & 320, or concurrent registration; Stat 324  
Typically Offered: Fall, Spring

CBE 326 Momentum and Heat Transfer Operations  Credits: 3  
Analysis of chemical engineering operations involving fluid flow and heat transfer. Flow of fluids through ducts and porous media; motion of particulate matter in fluids; general design and operation of fluid-flow equipment. Conductive, convective and radiative heat exchange with and without phase change; general design and operation of heat-exchange equipment.  Prereq: CBE 310 & 320 with grades of C or better  
Typically Offered: Fall, Spring

CBE 361 Biomolecular Engineering Laboratory  Credits: 3  
Instruction and laboratory experiments in basic molecular biology techniques, recombinant protein production, fermentation processes, protein purification and characterization, and related bioengineering laboratory topics. Geared towards chemical engineering students with interests in biotechnology and synthetic biology.  Prereq: CBE 250; Zoo 151 or 153 or equivalent; or consent of instructor  
Typically Offered: Occasionally

CBE 424 Operations and Process Laboratory  Credits: 5  
Experiments in unit operations, and supervised individual assignments selected from areas such as: fluid dynamics, analytical methods, reaction kinetics, plastics technology, and use of computers in data processing and simulation.  Prereq: CBE 324, 326, 426 & 430; or consent of instructor  
General Education: COM B  Typically Offered: Summer
CBE 425 Undergraduate Rheology Seminar Credits: 0 - 1
Rheology seminar course encouraged for all interested in professions related to polymers, suspensions or rheology; will not count toward credit requirement of the major. Prereq: Cons inst or Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CBE 426 Mass Transfer Operations Credits: 3
Analysis of chemical engineering operations involving mass transfer. Differential and stagewise separation processes; simultaneous heat and mass transfer; mass transfer accompanied by chemical reaction; general design and operation of mass-transfer equipment. Prereq: CBE 311 & 320 with grades of C or better, or consent of instructor
Typically Offered: Fall, Spring

CBE 430 Chemical Kinetics and Reactor Design Credits: 3
Analysis and interpretation of kinetic data and catalytic phenomena; application of basic engineering principles to chemical reactor design. Prereq: CBE 311 & 320; or consent of instructor
Typically Offered: Fall, Spring

CBE 440 Chemical Engineering Materials Credits: 3
Structure and properties of metallic and nonmetallic materials of construction; interrelations between chemical bonding, structure, and behavior of materials. Prereq: Chem 345
Typically Offered: Fall, Spring

CBE 450 Process Design Credits: 3
Analysis and design of chemical processing systems and equipment. Prereq: CBE 326, 426 & 430 or consent of instructor
Typically Offered: Fall, Spring

CBE 470 Process Dynamics and Control Credits: 3
A systematic introduction to dynamic behavior and automatic control of industrial processes; lab includes instrumentation, measurement and control of process variables by using conventional hardware and real-time digital computers. Prereq: CBE 326; CBE 430 or concurrent registration
Typically Offered: Fall, Spring

CBE 489 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Prereq: Admission to CBE honors in research prgm
Typically Offered: Fall, Spring, Summer

CBE 505 Aspects of Industrial Chemistry and Business Fundamentals Credits: 3
The objective of this course is to educate students in the chemistry and chemical engineering that defines societies’ standard of living. Commercial chemical processes will be reviewed. Practical realities of how a discovery moves from research to commercial product will be taught through examples and case studies. Financial concepts that guide investment will be reviewed. Prereq: Junior standing and Chem 345
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

CBE 510 Introduction to Tissue Engineering Credits: 3
Overview of tissue engineering, including discussion of cell sources, cell-material interactions, tailoring biomaterials, methods of culture and characterization of engineering tissues, ethical issues, concluding with case studies of specific types of tissue engineering. Optional laboratory exercises offered throughout semester. Prereq: BME 430 or equiv, or cons inst
Typically Offered: Fall

CBE 517 Biology in Engineering Seminar Credits: 1
Current topics at the interface of biology and engineering with special emphasis on the ways in which engineers have contributed to knowledge and advances in biology. Prereq: Jr st in engr & one college-level biol crse
Typically Offered: Fall

CBE 520 Stem Cell Bioengineering Credits: 3
Covers engineering approaches that are used to understand and manipulate stem cells. Concepts covered include: introduction to stem cell biology, quantitative modeling of stem cell signaling, methods to engineer the stem cell microenvironment, and the role of stem cells in tissue development and regeneration. Prereq: Math 319 or 320, Zoology 470 or 570, Chem 343, or cons inst
Typically Offered: Fall
CBE 525 Macromolecular Hydrodynamics  Credits: 3
Observed phenomena in polymeric flow systems. Techniques of viscometry and viscoelastic measurements for polymeric fluids. Rheological models. Analytical solutions to flow problems: non-Newtonian viscosity, linear viscoelasticity, normal stresses, recoil, stress relaxation, etc. Dimensional analysis. Unit operations of the polymer industry: extrusion, blow molding, injection molding, mixing.  Prereq:  CBE 320 or ME 363 or equivalent or consent of instructor
Typically Offered: Occasionally

CBE 535 Heterogeneous Catalysis: Principles and Applications  Credits: 3
This course discusses catalytic phenomena, with extensions to reactor design and catalyst characterization. Examples will be drawn from current problems in catalysis.  Prereq:  CBE 430 or cons inst
Typically Offered: Spring

CBE 540 Polymer Science and Technology  Credits: 3
Synthesis, properties, and fabrication of plastic materials of industrial importance.  Prereq:  Chem 345; CBE 326 & 430, or concurrent registration; Stat 324; or consent of instructor
Typically Offered: Fall, Spring

CBE 541 Plastics and High Polymer Laboratory  Credits: 1 - 3
Experiments on polymerization, fabrication, and testing of plastics.  Prereq:  CBE 540 or concurrent registration; or Chem 664 or concurrent registration
Typically Offered: Occasionally

CBE 544 Processing of Electronic Materials  Credits: 3
Physics and chemistry principles underlying microelectronic materials processing. Effects of processing on materials and structures important in microelectronic and opto-electronic devices.  Prereq:  CBE 440 or MS&E 351 or ECE 335; or cons inst
L&S Level: Intermediate  Typically Offered: Occasionally

CBE 547 Introduction to Colloid and Interface Science  Credits: 3
Introduction to topics in colloid and interface science. Topics include: sedimentation and diffusion, solution thermodynamics, rheology, light scattering, surface tension and contact angle, adsorption, association colloids, particle interactions, electrokinetics, and colloidal stability.  Prereq:  Chem 561 or 562 or equiv, or cons inst
Typically Offered: Fall

CBE 555 Seminar-Chemical Engineering Connections  Credits: 1
Considers a variety of current engineering applications and problems. Students will investigate background information on topics of their choice, and present seminars to describe how engineering fundamentals interact with societal impact and how our undergraduate education in chemical engineering is relevant to societal concerns at large.  Prereq:  Sr st or cons inst
Typically Offered: Fall, Spring

CBE 560 Biochemical Engineering  Credits: 3
Properties of biological molecules; enzyme kinetics, enzyme reactors, and enzyme engineering; metabolic engineering; microbial growth kinetics; bioreactor design; bioseparations.  Prereq:  CBE 310; CBE 320; Zoo 151 or 153; or consent of instructor
Typically Offered: Fall

CBE 562 Special Topics in Chemical Engineering  Credits: 1 - 3
Topics of specialized interest to majors in chemical engineering. Given on demand.  Prereq:  Jr st and cons inst
Typically Offered: Fall, Spring

CBE 567 Solar Energy Technology  Credits: 3
Radiant energy transfer and its application to solar exchangers; energy balances for solar exchangers, review of theory, economics, and practice of solar energy applications.  Prereq:  ME 364 or CBE 326 or consent of instructor
Typically Offered: Fall
CBE 575 Instrumental Analysis for Chemical Engineers Credits: 3
Instrumental methods as applied to chemical and physical processes in chemical engineering. Spectroscopic, optical, and electrochemical methods; chromatography, differential thermal analysis, and microscopy. Prereq: CBE 324 or consent of instructor
Typically Offered: Occasionally

CBE 599 Special Problems Credits: 1 - 4
Research or independent study.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CBE 620 Intermediate Transport Phenomena Credits: 3
Mass, momentum, and energy transport; kinetic theory of transport properties; analytical and approximate solutions to the equations of change; boundary layer theory; turbulence; simultaneous heat and mass transfer; multicomponent diffusion. Prereq: Grad standing in CBE or consent of instructor
Typically Offered: Fall

CBE 660 Intermediate Problems in Chemical Engineering Credits: 3
Illustrations of solving chemical engineering problems by using a variety of mathematical topics such as ordinary and partial differential equations, Laplace transform, Bessel functions, matrices, and tensor analysis. Problem formulation and interpretation of results emphasized. Prereq: Grad st in CBE or cons inst
Typically Offered: Fall

CBE 699 Advanced Independent Studies Credits: 1 - 5
Research on assigned topics.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CBE 702 Graduate Cooperative Education Program Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with a background on which to develop and enhance a professional career. The work experience is tailored for MS students from within the U.S. as well as eligible international students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CBE 710 Advanced Chemical Engineering Thermodynamics Credits: 3
Application of thermodynamic principles to selected topics, including equations of state, non-ideal solutions, and complex physical and chemical equilibria. Prereq: Grad st in CBE or cons inst
Typically Offered: Occasionally

CBE 720 Physicochemical Hydrodynamics Credits: 3
Tensor analysis; partial differential equations for multi-component fluid mixtures; applications to laminar flow, turbulent flow, porous media, particulate systems; two-phase flow problems; interfacial transport; boundary-layer methods and variational procedures. Prereq: CBE 620 & 660, or cons inst
Typically Offered: Occasionally

CBE 731 Computational Modelling of Reactive Systems Credits: 3
Typically Offered: Occasionally

CBE 735 Kinetics and Catalysis Credits: 2 - 3
Survey of kinetic principles and factors which influence reaction rates, with particular emphasis on catalysts and catalytic reactions. May include a seminar on modern catalytic research. Prereq: Grad st in CBE or cons inst
Typically Offered: Occasionally

CBE 747 Advanced Colloid and Interface Science Credits: 3
Advanced topics in colloid and interface science. Topics include: intermolecular forces, stability of thin films, association colloids, liquid crystals, microhydrodynamics, electrostatics, electrokinetics, colloidal stability, and dispersion rheology. Prereq: CBE 547 or cons inst
Typically Offered: Occasionally
CBE 750 Advanced Chemical Process Synthesis and Optimization Credits: 3
Methodologies for synthesis and optimization of chemical process systems. Application of linear, nonlinear, and mixed integer programming to steady state process optimization, production planning, and flowsheet synthesis. Prereq: Graduate standing in CBE or consent of instructor
Typically Offered: Occasionally

CBE 770 Advanced Process Dynamics and Control Credits: 3
Modern methods for the mathematical analysis and control of dynamical systems. Application to physico-chemical systems. Real-time computer control. Prereq: Grad st in CBE or cons inst
Typically Offered: Occasionally

CBE 777 Nonlinear Dynamics, Bifurcations and Chaos Credits: 3
Advanced interdisciplinary introduction to qualitative and geometric methods for dissipative nonlinear dynamical systems. Local bifurcations of ordinary differential equations and maps. Chaotic attractors, horseshoes and detection of chaos. Prereq: Cons inst
Typically Offered: Occasionally

CBE 781 Biological Engineering: Molecules, Cells & Systems Credits: 3
Protein engineering and protein-protein interactions, receptor-ligand binding, cell metabolism and signaling, metabolic engineering and synthetic biology, tissue engineering. Additional topics may be covered such as: regenerative medicine, biomaterials, microbe-host interactions. Prereq: Graduate or professional standing
Typically Offered: Fall

CBE 782 Modeling Biological Systems Credits: 3
Literature survey of mathematical models in biology at the molecular and cellular levels; application of chemical kinetics and thermodynamics to biological systems; comparison of deterministic and stochastic strategies. Prereq: Math 319 or 320 or cons inst
Typically Offered: Occasionally

CBE 783 Design of Biological Molecules Credits: 3
Introduction to the methodologies for engineering the structure and function of biological molecules, especially proteins. Students will develop an understanding for the integration of computation and experiment to address biological molecular engineering problems. Prereq: Biocore 303 or Biochem 501 or Zoology 570; or cons inst
Typically Offered: Occasionally

CBE 790 Master's Research or Thesis Credits: 1 - 9
Prereq: Grad st, for Master's candidates only
Typically Offered: Occasionally

CBE 890 Pre-Dissertator's Research Credits: 1 - 9
Prereq: Grad st, for post-master's, pre-dissertator stdts only
Typically Offered: Occasionally

CBE 915 Computation and Informatics in Biology and Medicine Credits: 1
Participants and outside speakers will discuss current research in computation and informatics in biology and medicine. This seminar is required of all CIBM program trainees. Prereq: Cons inst
Typically Offered: Occasionally

CBE 920 Seminar on Advances in Transport Phenomena Credits: 1
Critical review of recent and current research in transport phenomena and allied disciplines. Prereq: Cons inst
Typically Offered: Occasionally

CBE 925 Rheology Research Seminar Credits: 0 - 1
Exploration of the most recent research literature on viscoelasticity, constitutive equations, non-Newtonian flow systems, fluid metering devices, kinetic theory of macromolecules, and rheooptical phenomena. Periodic reports on recent advances made by research workers in the various rheology groups on the Madison campus. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CBE 932 Biotechnology Training Program Seminar Credits: 1
Biotechnology Training Program trainees will present their research for critical review by audience. Prereq: Grad st. Required of Biotechnology Training Program trainees
Typically Offered: Occasionally
CBE 961 Seminar-Chemical Engineering  Credits: 0 - 1
Prereq: Graduate or professional standing
Typically Offered: Occasionally

CBE 970 Seminar on Process Analysis, Synthesis, Dynamics and Control  Credits: 1
Critical review of recent and current research in these areas. Prereq: Cons inst
Typically Offered: Occasionally

CBE 990 Thesis-Research  Credits: 1 - 12
Prereq: Dissertator status
Typically Offered: Occasionally

CBE 999 Advanced Independent Studies  Credits: 1 - 6
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

CIVIL AND ENVIRONMENTAL ENGR

CIV ENGR 1 Cooperative Education Program  Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Prereq: So st
Typically Offered: Fall, Spring, Summer

CIV ENGR 251 Engineering Spatial Measurements  Credits: 2
Introduction to the fundamentals of engineering measurements; units of measurement; significant figures; errors in measurement; measuring devices and their calibration; measurements of distances, angles, elevations and other engineering quantities; construction measurements; reference coordinate systems for point positioning, datums; mapping. Prereq: Math 221, ME 170 or consent of instructor
Typically Offered: Fall, Spring

CIV ENGR 290 Construction Systems  Credits: 3
Course focuses upon the building construction industry. Buildings include many engineered systems, such as foundations, structural, and exterior cladding. Course addresses construction methods and techniques for sitework, excavation, paving, cast-in-place concrete, precast concrete, masonry, structural steel, and moisture protection. Course uses case examples of individual systems. Prereq: So st
Typically Offered: Spring

CIV ENGR 291 Problem Solving Using Computer Tools  Credits: 3
Introduction to engineering computations with emphasis on computer tools and computer based measurement, data collection, and processing. Tools will include computer aided drafting, spreadsheets, other engineering computation tools, and hardware and software for laboratory and spatial measurements. Prereq: EMA 202 or 304
Typically Offered: Fall, Spring

CIV ENGR 299 Independent Study  Credits: 1 - 3
Typically Offered: Fall, Spring, Summer

CIV ENGR 310 Fluid Mechanics  Credits: 3
Fluid statics and dynamics, dimensional analysis, flow of an ideal fluid, flow of a real fluid--including laminar and turbulent flow, applications to engineering problems. Prereq: Math 234 & EMA 202 or equiv
Typically Offered: Fall, Spring

CIV ENGR 311 Hydroscience  Credits: 3
Introduction to the water cycle, its relationship to the environment and human attempts to conserve, control, and utilize water judiciously. Fundamentals of hydrology, hydraulics, coastal engineering and water resources engineering. Prereq: Civ Engr 310
Typically Offered: Fall, Spring
CIV ENGR 315 Hydrology Credits: 3
Water cycle as related to air mass properties and movement, precipitation, evaporation, snowmelt, infiltration, streamflow, floods, and groundwater. Statistical hydrology, and hydrologic simulations--including runoff prediction, streamflow and reservoir routing, impoundment operation studies, and urban hydrology. Prereq: Comp Sci 211 or 302 & Civ Engr 311 or cons inst
Typically Offered: Fall

CIV ENGR 320 Environmental Engineering Credits: 3
Fundamental sanitary aspects of environmental engineering. Role of the engineer in the control of the environment; water supply and wastewater problems; solid waste disposal; air pollution; and administration in environmental engineering. Prereq: 1 year college chem
Typically Offered: Fall, Spring

CIV ENGR 322 Environmental Engineering Processes Credits: 3
Combination of theory and laboratory practice to study basic unit operations and processes in environmental engineering. Emphasis on water and wastewater treatment processes, such as coagulation/flocculation, chemical precipitation, filtration, adsorption, activated sludge, anaerobic digestion, and substrate utilization kinetics. Prereq: Civ Engr 320
Typically Offered: Fall, Spring

CIV ENGR 330 Soil Mechanics Credits: 4
Basic principles of soil mechanics and fundamentals of application in engineering practice; soil composition and texture; classification; permeability and seepage; consolidation; settlement; shear strength; lateral earth pressures; fundamentals of retaining structures, shallow and deep foundations, slope stability; sub-surface exploration; lab. Prereq: EMA 303 or 304 or con reg
Typically Offered: Fall, Spring

CIV ENGR 340 Structural Analysis I Credits: 4
Analysis of statically determinate and indeterminate beams, trusses, and rigid frames; deflections by virtual-work, moment-area; influence lines; force methods; structural design loads, introduction to structural design, approximate methods. Prereq: EMA 303 & Mech Engr 307 or con reg
Typically Offered: Fall

CIV ENGR 370 Transportation Engineering Credits: 3
Characteristics of transportation supply and demand; measuring and estimating demand; social and environmental impacts; planning of transportation systems; characteristics of transportation modes; interaction between modes; mode interfaces; transportation technology; economics; public policy, implementation and management. Prereq: Stat 311 or Stat 324
Typically Offered: Fall

CIV ENGR 372 On-Site Waste Water Treatment and Dispersal Credits: 2
On-site treatment and dispersal of waste water from homes, commercial sources and small communities. Sources, pretreatment units, nutrient removal units, constructed wetlands, surface and soil dispersal systems, recycle and reu se systems, regulations, alternative collection systems. Prereq: Chem 103
Typically Offered: Fall

CIV ENGR 377 An Introduction to Geographic Information Systems Credits: 4
Design, implementation and use of automated procedures for storage, analysis and display of spatial information. Covers data bases, information manipulation and display techniques, software systems and management issues. Case studies. Meets with Civil & Environmental Engineering 357. Prereq: Sophomore standing
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

CIV ENGR 392 Building Information Modeling (BIM) Credits: 2
Provides students with an introduction to the use of Building Information Modeling (BIM) technology in the construction industry. The course allows students to gain experience in using computer tools such as the Autodesk Revit Family to model building designs. Prereq: M E 160 or M E 170
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

CIV ENGR 395 Materials for Constructed Facilities Credits: 3
Properties and tests of materials used in the initial construction or repair of facilities (including buildings, transportation systems, utility systems, and reinforced earth). Introduction to laboratory and field measurement techniques to assess material performance capabilities. Technical report preparation. Prereq: EMA 303 & 307
Typically Offered: Spring
CIV ENGR 410 Hydraulic Engineering Credits: 3
Engineering approaches to measurement, control and conveyance of water and wastewater flows, emphasizing
analysis, design, characteristics and selection of: measurement devices, distribution and collection pipe systems,
and pumps and turbines with consideration of plant, quality, economic, reliability, and security aspects. Prereq:
Civ Engr 310 & 311 or consent of instructor
Typically Offered: Fall, Spring

CIV ENGR 411 Open Channel Hydraulics Credits: 3
Analysis and characteristics of flow in open channels (natural and artificial); channel design considerations
including uniform flow (rivers, sewers), flow measuring devices (weirs, flumes), gradually varied flow (backwater
and other flow profiles, flood routing), rapidly varied flow (hydraulic jump, spillways), and channel design problems
(geometric considerations, scour, channel stabilization, sediment transport). Prereq: Civ Engr 311
Typically Offered: Occasionally

CIV ENGR 412 Groundwater Hydraulics Credits: 3
Applications to wells, recharge, plumes, and convective transport. Physical models and elementary numerical
methods, including flow nets. Some laboratory work.
Typically Offered: Occasionally

CIV ENGR 414 Hydrologic Design Credits: 3
An introduction to the design of engineering structures which control and/or utilize runoff, emphasizing the sizing
of structures to meet hydrologic uncertainty. Applies principles and techniques from several disciplines, including
hydrology, hydraulics, probability and statistics. Specific techniques include flood frequency analysis; risk
analysis; design storm and historic storm techniques; rainfall-runoff modeling. Prereq: Civ Engr 315 or cons inst
Typically Offered: Spring

CIV ENGR 416 Water Resources Systems Analysis Credits: 3
Water supply and demand are increasingly stressed by climate, population, land-use, policy, etc. This course
presents a variety of systems analysis techniques for water resources planning and management. Deterministic
and stochastic optimization and simulation models will be developed and applied. Problems addressed include water supply,
water quality, and river basin development. Prereq: Civ Engr 311 or consent of instructor
Typically Offered: Spring

CIV ENGR 421 Environmental Sustainability Engineering Credits: 3
This course utilizes the three paradigms of sustainability (environmental, social, and economic) in an engineering
setting, in order to understand how to engineer for a sustainable future. The course will cover topics such as
design for the environment, green chemistry, pollution prevention, total cost accounting, life cycle assessment,
and industrial ecology. It will involve a community based learning term project, where the students will work in
groups to address the sustainability implications of a project for a community partner. Prereq: (MATH 217, 221,
or 275) and CHEM 104 or 109
Typically Offered: Fall

CIV ENGR 422 Elements of Public Health Engineering Credits: 3
Prereq: Consent of instructor
Typically Offered: Fall, Spring

CIV ENGR 423 Air Pollution Effects, Measurement and Control Credits: 3
The influence of man-caused pollution on the atmosphere, globally and locally. Evaluation of human health,
economic, and aesthetic effects of air pollution. Techniques for measurement of atmosphere pollutant
concentrations and determination of local and regional air quality. Detailed presentation of air pollution sources
and methods for their control. The role of local, state and federal government in air pollution control. Prereq:
Senior standing
Typically Offered: Occasionally

CIV ENGR 424 Environmental Engineering Laboratory Credits: 2
Basic chemistry and chemical calculations applied to environmental engineering, lab methods and interpretation
of results for chemical and biological analyses of water and wastewater. Prereq: Chem 103 or equiv
Typically Offered: Fall
CIV ENGR 426 Design of Wastewater Treatment Plants Credits: 3
Unit operations in wastewater treatment; physical, chemical, and biological processes for treatment of wastewater; sludge treatment and disposal; design of a wastewater treatment plant; site visits to wastewater treatment plants. Prereq: Civ Engr 310 or 316, & Civ Engr 320, or cons inst
Typically Offered: Fall

CIV ENGR 427 Solid and Hazardous Wastes Engineering Credits: 3
Basic concepts in designing, evaluating, and operating solid wastes storage, collection, and disposal systems; waste reduction, resource recovery, incineration and land disposal methods; hazardous wastes engineering; legal, political, and administrative considerations. Prereq: Civ Engr 310 or cons inst
Typically Offered: Fall

CIV ENGR 428 Water Treatment Plant Design Credits: 3
Preliminary studies and design of water treatment processes and subordinate plant facilities; project control of design project; unit operations in water treatment; groundwater treatment; preliminary cost estimates; introduction of computer-aided design concept; site visits to water treatment plants. Prereq: Civ Engr 310, 320
Typically Offered: Spring

CIV ENGR 429 Environmental Systems Optimization Credits: 3
Design and analysis of complex environmental systems to capture policy trade-off in managing water, land, air, and energy resources. Illustration of models that describe decision variables and constraints to capture the full range of alternative policy choices. Heuristic and formal solution procedures to select best project alternatives. Prereq: Introductory calculus
Typically Offered: Spring

CIV ENGR 440 Structural Analysis II Credits: 3
Typically Offered: Fall, Spring

CIV ENGR 442 Wood Structures I Credits: 3
Properties of wood, basic concepts of structural design, design of wood structural members by LRFD including beams, columns and connections. Sawn, glued-laminated, sheathing and composite wood construction products. Concrete formwork. Prereq: Civ Engr 340
Typically Offered: Fall, Spring

CIV ENGR 444 Practical Applications of GPS Surveying Credits: 2
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Spring

CIV ENGR 445 Steel Structures I Credits: 3
Design loads, codes, specifications and standards; philosophies of design; load and resistance factor design (LRFD); allowable stress design (ASD); properties and types of structural steel; residual stresses; behavior and LRFD design criteria for tension members, compression; laterally braced and unbraced beams; essentials of bolted and welded connections. Prereq: Civ Engr 340
Typically Offered: Fall, Spring

CIV ENGR 447 Concrete Structures I Credits: 3
Behavior of reinforced concrete structural elements; concepts of design and proportioning sections for strength and serviceability; background of specification requirements; strength design applied to beams, columns, and members under combined axial load and bending; continuous beams. Prereq: Civ Engr 340
Typically Offered: Fall, Spring

CIV ENGR 460 Uncertainty Analysis for Engineers Credits: 3
This course introduces undergraduates to approaches for quantifying uncertainty in engineering analyses. Both analytical and computational methods are demonstrated. Prereq: Statistics 311, Math 431, or consent of instructor
Typically Offered: Fall
CIV ENGR 489 Honors in Research Credits: 1 - 3
Undergrad honors research projects supervised by faculty members. Not available for graduate credit. Prereq: Admission to the CEE honors in research program
Typically Offered: Fall, Spring, Summer

CIV ENGR 491 Legal Aspects of Engineering Credits: 3
Legal principles and institutions germane to engineering practice; formation and performance of engineer-client and owner-contractor relationships; preparation of technical specifications; surety bonds and insurance; construction liens; contract administration; construction contract remedies; intellectual property of engineers; engineers' obligations to society and their fellow engineers. Prereq: Sr st or cons inst
Typically Offered: Fall, Spring

CIV ENGR 492 Integrated Project Estimating and Scheduling Credits: 3
Principles of estimating and scheduling for the construction industry, engineer's preliminary and final estimates' quantity take offs and cost and duration determinations for major items related to a construction project; use manual and computer techniques. Prereq: Jr st
Typically Offered: Spring

CIV ENGR 494 Civil and Environmental Engineering Decision Making Credits: 3
Planning, designing, and managing civil engineering systems. Fundamentals of the systems approach; marginal analysis; optimization techniques; decision analysis; economic analysis; cost-effectiveness analysis. Case study applications. Prereq: Math 221 or cons inst
Typically Offered: Fall, Spring

CIV ENGR 496 Electrical Systems for Construction Credits: 3
Basic electricity, utility systems, standards and codes, electrical construction materials, branch circuit design, motor branch circuit design, feeder and service design, estimating and management concepts in electrical contracting, grounding, lighting, telecommunications. Prereq: Physics 202
Typically Offered: Fall, Spring

CIV ENGR 497 Mechanical Systems for Construction Credits: 3
Introduction to building mechanical systems. Plumbing, heating, ventilation, air conditioning, fire protection, automation/controls and process systems. Introduction to mechanical systems design and cost estimating. Mechanical system management. Prereq: Physics 202
Typically Offered: Spring

CIV ENGR 498 Construction Project Management Credits: 3
Characteristics of Construction Industry; project organizations; the design and construction process; labor, material, and equipment utilization; cost estimation; construction pricing and contracting; construction planning; cost control, monitoring accounting; and management systems construction. Prereq: Junior standing or consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

CIV ENGR 500 Water Chemistry Credits: 3
Elements of fresh and marine water chemistry; acid-base, precipitation, complexation, oxidation-reduction, adsorption, and biochemical reactions in natural waters and water treatment processes. Prereq: Chem 103, 104, 221 or equivalent or consent of instructor
Typically Offered: Fall

CIV ENGR 501 Water Analysis-Intermediate Credits: 3
Principles and applications of chemical and instrumental methods for the chemical analysis of water. Prereq: Chem 103
Typically Offered: Fall

CIV ENGR 502 Environmental Organic Chemistry Credits: 3
Environmental behavior of anthropogenic organic compounds. Physical-chemical properties and compound specific reactivities. Environmental processes controlling transport and fate; air-water exchange, sorption, chemical and photochemical reactions and transformations. Environmental fate modeling. For graduate students in environmental science and engineering. Prereq: Civ Engr 500, Chem 343 or equiv, or cons inst
Typically Offered: Spring
CIV ENGR 514 Coastal Engineering Credits: 2 - 3
The effect of natural forces associated with storms, hurricanes, and water-level variations on the coastal zone, and efforts made to combat these forces. Wave and storm-surge prediction, the change of waves as they approach shore, and wave forces on the shore; shore erosion and littoral drift; nearshore pollution in lakes and oceans; harbor, breakwater, and revetment design. Prereq: Civ Engr 311 or consent of instructor
Typically Offered: Spring

CIV ENGR 522 Hazardous Waste Management Credits: 3
Environmental regulations, remediation site characterization, contaminant characterization, detailed engineering and management considerations related to the design and operation of hazardous waste remediation systems involving water pollution, air pollution, solid waste, and groundwater pollution. Prereq: Civ Engr 320 or cons inst
Typically Offered: Spring

CIV ENGR 530 Seepage and Slopes Credits: 3
Practical aspects of seepage effects and ground water flow. Stability of natural and man-made slopes under various loading conditions. Design and construction of earth dams and embankments. Flow net and its use; wells; filters; total and effective stress methods of slope analysis; selection of pertinent soil parameters. Prereq: Civ Engr 330
Typically Offered: Fall, Spring

CIV ENGR 531 Retaining Structures Credits: 3
Rigid and flexible earth retaining structures. Analysis and design of retaining walls, anchored bulkheads, braced cuts, tie back cuts, mechanically stabilized earth, and slurry trench walls. Lateral earth pressure due to soil, water, surcharge loads, etc., local and overall stability and the design of anchorage and bracing systems. Prereq: Civ Engr 330; Comp Sci 310 or cons inst
Typically Offered: Fall, Spring

CIV ENGR 532 Foundations Credits: 3
Shallow and deep foundations. Analysis and design of footings, mats, piers and piles, and related fill and excavation operations. Consolidation settlement, time rate of settlement, stress distribution, elastic (immediate) settlement, load bearing capacity; methods to reduce settlements and increase shear strength; the selection of a foundation system. Prereq: Civ Engr 330 & Comp Sci 310 or cons inst
Typically Offered: Fall, Spring

CIV ENGR 534 Field Methods in Geological Engineering Credits: 3
Methods of site investigations for the rational design of structures in rocks and soil. Field reconnaissance, exploratory drilling, in situ testing, during and post-excavation monitoring. Prereq: Civ Engr 330 & GLE 474, or consent of instructor
Typically Offered: Fall

CIV ENGR 543 Precast Concrete Credits: 3
Design of structural systems using precast concrete components, capacity of prestressed components, fire ratings, connections and construction of precast systems. Prereq: Civ Engr 447
Typically Offered: Occasionally

CIV ENGR 545 Steel Structures II Credits: 3
Composite construction; composite vs. non-composite behavior; shored vs. unshored construction; stability of frames; elastic analysis of frames including second order effects; strength of members subject to combined flexure and axial compression; plate girders; vertical flange buckling; flexural and shear strength; flexure and shear interaction; stiffener requirements. Prereq: Civ Engr 445
Typically Offered: Fall, Spring

CIV ENGR 547 Concrete Structures II Credits: 3
Deflections under short duration and sustained loads; compression members with emphasis on stability and secondary bending moments; two-way slab systems; prestressed concrete including prestress losses; design of shear walls, special topics in strut and tie modelling, compression field theory and design for torsion may be covered; flexure analysis; design of sections; and shear strength. Prereq: Civ Engr 447
Typically Offered: Fall, Spring
CIV ENGR 556 Remote Sensing Digital Image Processing Credits: 3
Techniques of enhancement and quantification of remote sensing imagery. Emphasis on processing and analyzing data gathered by airborne and satellite sensors. Techniques to quantitatively analyze data from photography, electro-optical scanners, satellite systems, and radar and passive microwave systems. A 5-week practicum with applications to: agriculture and forestry, geology and soils, water quality, and urban and regional planning. Prereq: Civ Engr/Envir St/Forestry 303 or authorization
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

CIV ENGR 561 Energy Markets Credits: 3
Energy resources are an essential element of the world's business, political, technical and environmental landscape. Analytic tools provided by the discipline of economics expands our understanding of this critical issue. Energy supply markets reviewed include both fossil fuels and renewable resources. Energy demand sectors include residential, commercial, industrial and transportation. Electricity represents an intermediate energy market. The interactions among these markets participants indicate how scarce resources are allocated among competing needs in the world economy. Prereq: ECON 101, ECON 111, or AAE 215
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

CIV ENGR 570 Environmental Impact of Transportation Systems Credits: 3
Nature of the ecosystem and ecosystem modeling, the nature of transportation produced impacts on man's social, economic, physical and emotional well being, on wildlife, natural areas, agricultural areas; environmental economics; measuring and evaluating environmental quality, and citizen tactics in response to environmental issues. Prereq: Jr st or cons inst
Typically Offered: Occasionally

CIV ENGR 571 Urban Transportation Planning Credits: 3
Principles of planning, evaluation, selection, adoption, financing, and implementation of alternative urban transportation systems; formulation of community goals and objectives, inventory of existing conditions; transportation modeling--trip generation, distribution, modal choice, assignment, technological characteristics and operation of modern transit and other movement systems. Prereq: Civ Engr 370 or consent of instructor
Typically Offered: Fall

CIV ENGR 573 Geometric Design of Transport Facilities Credits: 3
Problems in ground transportation facility design; generation, capacity, location and design; rural and urban at-grade intersection design; grade separations; interchanges; parking lots and terminals. Prereq: Civ Engr 370
Typically Offered: Fall, Spring

CIV ENGR 574 Traffic Control Credits: 3
Traffic data collection studies; measures of effectiveness and evaluation of traffic system performance; design and application of traffic control devices; design of traffic signal systems; operational controls and traffic management strategies. Prereq: Civ Engr 370 or consent of instructor
Typically Offered: Fall, Spring

CIV ENGR 575 Advanced Highway Materials and Construction Credits: 3
Soils, soil stabilization, aggregates, bituminous materials and mixtures, general highway materials and construction of rigid and flexible pavements.
Typically Offered: Fall, Summer

CIV ENGR 576 Advanced Pavement Design Credits: 3
Covers the principles of stress and strain analyses in typical highway pavement structures due to loading from traffic and climate. Also covers the most commonly used analysis and design procedures/software to determine thickness of pavement layers and prediction of performance. Prereq: Civ Engr 395
Typically Offered: Occasionally

CIV ENGR 578 Senior Capstone Design Credits: 4
The application of theoretically and academically acquired knowledge to a civil and environmental engineering problem in as near "real-world" as possible. Prereq: Completion of at least 1 crse which carries 3 cr of design
Typically Offered: Fall, Spring

CIV ENGR 579 Seminar-Transportation Engineering Credits: 1
Current problems and research developments in transportation, highways, traffic engineering, and transportation planning and systems analysis. Prereq: Sr st
Typically Offered: Fall, Spring
CIV ENGR 592 Construction Labor Productivity Management Credits: 3
Comprehensive systems approach to construction labor productivity management and methods improvement. Productivity measurements including work sampling, crew balance charts, process charts, flow diagram and others. The course also includes external factors affecting labor productivity, such as change orders, overmanning, stacking of trades and weather. An integral part of this course is the impact of safety on productivity.
Typically Offered: Fall

CIV ENGR 596 Constructability Analysis Credits: 3
Project facility delivery process; conceptual planning, design, construction, operation and maintenance, construction knowledge and experience, analysis of facility design from a construction perspective, constructability concepts. Prereq: Jr st
Typically Offered: Fall, Spring

CIV ENGR 609 Special Topics in Water Chemistry Credits: 1 - 3
Given on demand. Prereq: Cons inst
Typically Offered: Fall, Spring

CIV ENGR 618 Special Topics in Hydraulics and Fluid Mechanics Credits: 1 - 3
Given on demand. Prereq: Prereq varies with topic
Typically Offered: Occasionally

CIV ENGR 619 Special Topics in Hydrology Credits: 1 - 3
Given on demand. Prereq: Cons inst
Typically Offered: Occasionally

CIV ENGR 623 Microbiology of Waterborne Pathogens and Indicator Organisms Credits: 3
Source, environmental fate and transport of major groups of waterborne pathogens, including epidemiology and testing of associated indicator organism. Management and treatment technologies for prevention of pathogen transmission. Prereq: Soil Sci 523 or Civ Engr 322 or consent of instructor
Typically Offered: Fall

CIV ENGR 629 Special Topics in Environmental Engineering Credits: 1 - 3
Given on demand. Prereq: Sr st
Typically Offered: Occasionally

CIV ENGR 631 Toxicants in the Environment: Sources, Distribution, Fate, & Effects Credits: 3
Nature, sources, distribution, and fate of contaminants in air, water, soil, and food and potential for harmful exposure Prereq: Chem 343 & 345 or equiv; Chem 561 or equiv; Physics 103 & 104 or equiv; Math 211; or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CIV ENGR 633 Waste Geotechnics Credits: 3
The geotechnical aspects of waste disposal and storage. Critical aspects of geotechnical design, construction, and testing relevant to the performance of earthen structures used for the storage and disposal of wastes or the remediation of contaminated sites are discussed. Prereq: Civ Engr 330 & 320 or cons inst
Typically Offered: Fall, Spring

CIV ENGR 635 Remediation Geotechnics Credits: 3
Geotechnical practice for remediation of sites containing contaminated soil and groundwater is discussed. Topics include non-invasive and invasive subsurface exploration techniques, methods to monitor for the presence of contaminants in the saturated and unsaturated zones, and geotechnically-oriented remedial action technologies. Prereq: Civ Engr 320 & 330
Typically Offered: Fall, Spring

CIV ENGR 639 Special Topics in Geotechnical Engineering Credits: 1 - 4
Given on demand. Prereq: Cons inst
Typically Offered: Occasionally
CIV ENGR 641 Highway Bridges Credits: 3
Design applications in structural steel, reinforced and prestressed concrete to simple span and continuous highw...
This course examines the fundamental molecular processes that govern the fate and transformation of organic contaminants in natural environmental systems and engineered treatment processes. We will emphasize the kinetics describing these processes and focus on transformation mechanisms of organic contaminants in aquatic systems. Specific topics include partitioning between air, water, and solids; chemical kinetics; substitution, hydrolysis, and redox reactions; oxidation reactions encountered in ozone and chlorine-based disinfection systems; and photochemical and biological transformations.  Prereq: CIV ENGR 500; Graduate Standing

Typically Offered: Every Other Spring

CIV ENGR 716 Statistical Modelling of Hydrologic Systems Credits: 3
Real world applications of probability and statistics to the analysis and modeling of problems in surface and groundwater hydrology. Assumes basic knowledge of probability and statistics.  Prereq: Stat 311 or cons inst

Typically Offered: Occasionally

CIV ENGR 717 Water Resources Management Practicum Planning Seminar I Credits: 1
This is the first of two seminars used for planning the activities of the Summer Session Water Resources Management Practicum (ENVIR ST 719).  Prereq: Consent of instructor

Typically Offered: Fall

CIV ENGR 718 Water Resources Management Practicum Planning Seminar II Credits: 2
This seminar is used for planning the field work, analysis and reporting of the Summer Session Water Resources Management Practicum (ENVIR ST 719).  Prereq: Adv Grad standing or consent of instructor

Typically Offered: Spring

CIV ENGR 719 Water Resources Management Summer Practicum Credits: 4
Interdisciplinary team of students and staff working with agency personnel, citizen groups, and/or private sector representatives on the analysis of a contemporary, problem-oriented water resource issue. Physical, biological, economic and social aspects of the issue analyzed. Comprehensive written report results, practicum's findings and management recommendations.  Prereq: Envir St/Civ Engr/Urb R Pl 718 or consent of instructor

Typically Offered: Summer

CIV ENGR 721 Biological Principles of Environmental Engineering Credits: 3
Biological principles important to diagnosing and controlling pollution through environmental engineering applications such as fate and transport of contaminants in the environment, eutrophication, water treatment for human consumption, biological waste treatment for pollution control and bioenergy generation.  Prereq: Students must be accepted into an online Master of Engineering degree program

Typically Offered: Every Other Fall

CIV ENGR 722 Chemical Principles of Environmental Engineering Credits: 3
Principles of general, physical, equilibrium, colloid and biochemistry applied to environmental engineering processes such as evaluating environmental quality and treating water, air and soil to meet environmental standards.  Prereq: Students must be accepted into an online Master of Engineering degree program

Typically Offered: Spring

CIV ENGR 723 Energy Principles of Environmental Engineering Credits: 3
Principles of energy applied to environmental engineering such as energy resources, sustainability concerns, work and power, thermodynamics, system and process efficiencies, energy production from waste, heat transfer, and heating and cooling of systems.  Prereq: Declared in masters program in Civil and Environmental Engineering - Environmental Engineering

Typically Offered: Every Other Fall

CIV ENGR 730 Engineering Properties of Soils Credits: 3
Determination and interpretation of soil properties for engineering purposes; physio-chemical properties of soil-water systems, permeability and capillarity, compression characteristics of soils, measurement of soil properties in the triaxial test, properties of frozen soils and permafrost.  Prereq: Civ Engr 330

Typically Offered: Occasionally

CIV ENGR 731 Properties of Geosynthetics Credits: 3
Properties and behavior of geosynthetics (plastics sheets and geotextiles used in geotechnical and geo-environmental construction) are discussed and measured in a laboratory setting. Students learn how to measure and quantify geomechanical and hydraulic behavior of geosynthetics which are used in design.  Prereq: Grad st & Civ Engr 330, or cons inst

Typically Offered: Occasionally
CIV ENGR 732 Unsaturated Soil Geoengineering Credits: 3
Engineering principles of unsaturated soils as they apply to geotechnical and geoenvironmental systems. Effect of soil water suction and stress on hydraulic conductivity, shear strength, and compressibility of soils in the context of geoengineering problems of flow and stability. Prereq: Grad st & Civ Engr/GLE 330 or cons inst
Typically Offered: Occasionally

CIV ENGR 733 Physicochemical Basis of Soil Behavior Credits: 3
Applications of physicochemical, mineralogical and environmental considerations to the engineering behavior of soils. Soil composition, formation, fabric, pore fluid chemistry and interaction of phases. The particulate nature of soils and the fabric-engineering property (volume change, strength, deformation and conduction) relationships. Prereq: Civ Engr 330 or consent of instructor
Typically Offered: Occasionally

CIV ENGR 735 Soil Dynamics Credits: 3
Geotechnical considerations of earthquake engineering and foundation vibrations. Seismic surveying; ground motion during earthquakes; determination of soil properties for ground response analysis; dynamic properties of soils; soil structure interaction effects; soil liquefaction; dynamic analysis of earth dams; settlements resulting from earthquakes, lateral earth pressures during earthquakes; foundation vibrations. Prereq: Civ Engr/EMA 530, EMA 545 or cons inst
Typically Offered: Occasionally

CIV ENGR 739 Special Topics in Geotechnical Engineering Credits: 1 - 4
Advanced topics of special interest to graduate students in geotechnical engineering. Prereq: Cons inst
Typically Offered: Occasionally

CIV ENGR 740 Advanced Methods of Structural Analysis Credits: 3
Advanced topics in modern structural analysis including development of stiffness matrices, modeling connections, nonlinear geometry, nonlinear materials. Prereq: Civ Engr 440
Typically Offered: Occasionally

CIV ENGR 744 Structural Dynamics and Earthquake Engineering Credits: 3
Response of Single Degree of Freedom (SDOF) systems; numerical evaluation of dynamic response; earthquake response of SDOF systems; response spectra; Multi Degree of Freedom (MDOF) systems; natural frequencies and vibration modes; modal superposition; direct integration; damping of MDOF systems; earthquake response of MDOF systems; earthquake resistant design (basic principles). Prereq: Civ Engr 440 or cons inst
Typically Offered: Occasionally

CIV ENGR 749 Special Topics in Structural Engineering Credits: 1 - 4
Advanced topics of special interest to graduate students in structural engineering. Prereq: Cons inst
Typically Offered: Occasionally

CIV ENGR 772 Practicum in Transportation Management and Policy Credits: 3
Interdisciplinary team experience in the application of theoretical knowledge and analytical tools for developing policy and making management decisions on "real-world" problems. Prereq: Grad st or cons inst
Typically Offered: Spring

CIV ENGR 790 Master's Research or Thesis Credits: 1 - 9
Prereq: Grad st, for Master's candidates only
Typically Offered: Occasionally

CIV ENGR 795 Characterization of Asphalt Binders Credits: 3
Fundamentals of asphalt production methods, refining practices, and modification techniques. Asphalt rheological testing, linear and non-linear visco-elasticity, conventional and Superpave characterization techniques. The role of asphalt rheology in pavement response and pavement performance. Course includes hands-on training on using different rheometers used in binder grading systems. Prereq: Civ Engr 395 or 575
Typically Offered: Occasionally

CIV ENGR 821 Environmental Engineering: Biological Treatment Processes Credits: 3 - 4
Advanced theory and applications of biological systems for the treatment of wastes; lab techniques to assess treatability and to provide design parameters. Prereq: Graduate or professional standing
Typically Offered: Occasionally
CIV ENGR 822 Environmental Engineering: Physical/Chemical Treatment Process Credits: 4
Advanced theory and applications of chemical and physical-chemical processes for the treatment of water and wastewater; lab techniques to assess design requirements and treatability. Prereq: Civ Engr 320 or equiv or cons inst
Typically Offered: Occasionally

CIV ENGR 839 Land Use and Communication Systems Planning Credits: 3
Application of systems analysis to the planning of land use and transportation systems; system modeling; environmental impacts; value measurement; decision-making strategies. Prereq: Grad st & cons inst
Typically Offered: Occasionally

CIV ENGR 890 Pre-Dissertator's Research Credits: 1 - 9
Prereq: Grad st, for post-master's, pre-dissertator stdts only
Typically Offered: Occasionally

CIV ENGR 909 Graduate Seminar - Environmental Chemistry & Technology Credits: 1
Armstrong. Prereq: Graduate standing
Typically Offered: Occasionally

CIV ENGR 911 Limnology and Marine Science Seminar Credits: 1
Sections in various fields of zoological research. Prereq: Grad st in limnology & marine sci grad prgm or cons inst
Typically Offered: Occasionally

CIV ENGR 919 Seminar-Hydraulic Engineering and Fluid Mechanics Credits: 1
Current research and review of literature in theoretical and applied fluid mechanics and hydraulic engineering. Prereq: Grad st
Typically Offered: Occasionally

CIV ENGR 929 Seminar-Environmental Engineering Credits: 1
Current research and literature on water, wastewater, water pollution control, solid wastes engineering and management. Prereq: Grad st
Typically Offered: Occasionally

CIV ENGR 939 Geotechnical Engineering Seminar Credits: 1
Geotechnical analysis, design, and construction. Prereq: Cons inst
Typically Offered: Occasionally

CIV ENGR 949 Seminar-Structural Engineering Credits: 1
Structural analysis, design, and construction. Prereq: Grad st
Typically Offered: Occasionally

CIV ENGR 950 Environmental Monitoring Seminar Credits: 1
Current research and literature dealing with environmental remote sensing and geographic information systems. Prereq: Grad st
Typically Offered: Occasionally

CIV ENGR 970 Colloquium in Transportation Management and Policy Credits: 1
Current issues, case studies, research, and literature dealing with transportation management and policy development. Prereq: Grad st or cons inst
Typically Offered: Fall, Spring

CIV ENGR 990 Thesis Credits: 1 - 12
Required for some M.S. and all Ph.D. degrees. Prereq: Dissertator status
Typically Offered: Occasionally

CIV ENGR 999 Advanced Independent Study Credits: 1 - 9
Prereq: Grad st
Typically Offered: Occasionally

ELECTRICAL AND COMPUTER ENGR
E C E 1 Cooperative Education Program Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Prereq: So st
Typically Offered: Fall, Spring, Summer

E C E 203 Signals, Information, and Computation Credits: 3
Introduction to the signals, information, and computational techniques in electrical engineering. Prereq: MATH 211, 217, 221, or 275
Typically Offered: Fall, Spring

E C E 210 Introductory Experience in Electrical Engineering Credits: 2
An introduction to electrical and electronic devices, circuits and systems including software and hardware focusing on a real-world project. Prereq: Advanced math competence - algebra, trigonometry or suitable placement scores. Open to Freshmen
Typically Offered: Fall, Spring

E C E 219 Analytical Methods for Electromagnetics Engineering Credits: 1
Reviews basic calculations in electromagnetic engineering upon which all higher level concepts and physical model construction are based. It emphasizes quantitative calculation mastery in three spatial dimensions and/or time-frequency analysis. Applies analysis tools from vector calculus and complex exponentials to the calculation and prediction of electrical system properties. Examples include calculating electric and magnetic fields, electric potentials, or electric flux from change or current sources, and calculating the amplitudes and phases of electric or magnetic fields due to time-oscillating sources. Prereq: Math 234 or concurrent registration; ECE 203 or concurrent registration
Typically Offered: Fall, Spring

E C E 220 Electrodynamics I Credits: 3
Potential theory; static and dynamic electric and magnetic fields; macroscopic theory of dielectric and magnetic materials; Maxwell's equations; boundary conditions; wave equation; introduction to transmission lines. Prereq: Physics 202, ECE 219; ECE 230 or concurrent registration
Typically Offered: Fall, Spring

E C E 230 Circuit Analysis Credits: 4
Kirchhoff's laws, resistive circuits, equivalent circuits using Thevenin-Norton theories, small signal analysis, dc operating point, first-order circuits, second-order circuits, SPICE and circuit simulation methods, sinusoidal steady state, phasors, poles and zeros of network functions, ideal transformed linear and non-linear two-port networks. Prereq: Math 222, Physics 202
Typically Offered: Fall, Spring

E C E 235 Introduction to Solid State Electronics Credits: 3
An introduction to the physical principles underlying solid-state electronic and photonic devices, including elements of quantum mechanics, crystal structure, semiconductor band theory, carrier statistics, and band diagrams. Offers examples of modern semiconductor structures. Prereq: Open to Fr. Math 222 & Physics 202
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E C E 252 Introduction to Computer Engineering Credits: 2
Logic components built with transistors, rudimentary Boolean algebra, basic combinational logic design, basic synchronous sequential logic design, basic computer organization and design, introductory machine- and assembly-language programming. Prereq: Open to Freshmen
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E C E 270 Circuits Laboratory I Credits: 1
Experiments cover Kirchhoff's laws, inductors, basic operational amplifier circuits, and frequency response. Prereq: ECE 170; ECE 230 or con reg
Typically Offered: Fall, Spring, Summer

E C E 271 Circuits Laboratory II Credits: 1
Experiments cover electronic device characteristics, limitations and applications of operational amplifiers, and feedback circuits. Prereq: ECE 270; ECE 340 or con reg
Typically Offered: Fall, Spring, Summer
"Real-Time Digital Signal Processing" emphasizes the implementation of DSP algorithms on a digital signal processor in "real-time." Many of the signal processing algorithms that were used in ECE203 will be reviewed in Matlab and then will be implemented on a floating point signal processor in "real-time" using the C programming language. You will explore many basic digital signal processing processes in real-time. Followed by a student chosen project. You will gain the ability to create and develop your own Digital Signal Processing projects for a modern digital signal processor using an Integrated Development Environment. Lab hardware will be provided.

Prereq: ECE 203
Typically Offered: Fall, Spring

ECE 304 Electric Machines Laboratory Credits: 1
Terminal characteristics of electric machines, elements of speed control, voltage regulation, and applications in systems. Emphasis on the experimental approach to the solution of complex physical problems. Prereq: ECE 271; ECE 355 or con reg
Typically Offered: Spring

ECE 305 Semiconductor Properties Laboratory Credits: 1
Introduction to some fundamental properties of semiconductor materials and devices through the use of characterization techniques common in modern electronic industry. These concepts include: charge carriers; energy bands; space charge regions; carrier drift, diffusion and recombination; light emission; and lattice vibrations. Prereq: ECE 271; ECE 335 or con reg
Typically Offered: Fall, Spring

ECE 306 Linear Active Circuits Laboratory Credits: 1
Direct coupled and operational amplifier characteristics; applications of feedback; practical aspects. Prereq: ECE 271; ECE 342 or con reg
Typically Offered: Fall, Spring

ECE 308 Nonlinear Electronic Circuits Laboratory Credits: 1
An experimental study of selected nonlinear electronic circuits and devices using diodes, transistors, op-amps, timers, data converters, and logic components. Prereq: ECE 271; ECE 342 or con reg
Typically Offered: Fall, Spring

ECE 313 Optoelectronics Lab Credits: 1
Light detection using photovoltaic and photoconductive detectors and phototransistors. Light generation using light emitting diodes and laser diodes. Light transmission using optical fibers. Optoisolators and optical switches. Light emitting diode and liquid crystal displays. Prereq: ECE 271; 340; or cons inst
Typically Offered: Fall, Spring, Summer

ECE 315 Introductory Microprocessor Laboratory Credits: 1
Software and hardware experiments with a microcomputer system. Assembly language programming, simple input/output interfacing, and interrupt processing in microcomputer systems. Concurrent registration in 353 is allowed if 315 is taken second half of semester. Prereq: ECE 353
Typically Offered: Fall, Spring

ECE 317 Sensors Laboratory Credits: 1
A hands-on introduction to a variety of different sensor types. Labs incorporate implementation concerns involving interference, isolation, linearity, amplification, and grounding. Prereq: ECE 271, ECE 340 or cons inst
Typically Offered: Spring

ECE 320 Electrodynamics II Credits: 3
Static and dynamic electromagnetic fields; forces and work in electromechanical systems; magnetic circuits; plane wave propagation; reflection of plane waves; generalized transmission line equations; current and voltage on transmission lines; impedance transformation and matching; Smith charts. Prereq: ECE 220; Math 319 or 320 or concurrent registration, or consent of instructor
Typically Offered: Fall, Spring

ECE 330 Signals and Systems Credits: 3
Time-domain response and convolution; frequency-domain response using Fourier series, Fourier transform, Laplace transform; discrete Fourier series and transform; sampling; z-transform; relationships between time and frequency descriptions of discrete and continuous signals and systems. Prereq: ECE 203; ECE 230 or equivalent
Typically Offered: Fall, Spring, Summer
ECE 331 Introduction to Random Signal Analysis and Statistics Credits: 3
Introduction to probability, random variables, and random processes. Confidence intervals, introduction to experimental design and hypothesis testing. Statistical averages, correlation, and spectral analysis for wide sense stationary processes. Random signals and noise in linear systems. Prereq: ECE 330
Typically Offered: Fall, Spring

ECE 332 Feedback Control Systems Credits: 3
Modeling of continuous systems; computer-aided solutions to systems problems; feedback control systems; stability, frequency response and transient response using root locus, frequency domain and state variable methods. Prereq: ECE 330
Typically Offered: Fall, Spring

ECE 334 State Space Systems Analysis Credits: 3
Analysis of systems using matrix methods to write and solve state-variable differential equations. Additional topics include stability, controllability, observability, state feedback, observers, and dynamic output feedback. Prereq: Math 320 or 340 or con reg
Typically Offered: Spring

ECE 335 Microelectronic Devices Credits: 3
Characteristics of semiconductors; study of physical mechanisms and circuit modeling of solid state electronic and photonic devices; principles of microelectronic processing and examples of integrated circuits. Prereq: ECE 220, ECE 230, and ECE 235
Typically Offered: Fall, Spring

ECE 340 Electronic Circuits I Credits: 3
Typically Offered: Fall, Spring, Summer

ECE 342 Electronic Circuits II Credits: 3
A second course in modeling and application of semiconductor devices and integrated circuits. Advanced transistor amplifier analysis, including feedback effects. Design for power amplifiers, op-amps, analog filters, oscillators, A/D and D/A converters, and power converters. Introduction to transistor level design of CMOS digital circuits. Prereq: ECE 340
Typically Offered: Fall, Spring

ECE 352 Digital System Fundamentals Credits: 3
Logic components, Boolean algebra, combinational logic analysis and synthesis, synchronous and asynchronous sequential logic analysis and design, digital subsystems, computer organization and design. Prereq: Comp Sci/ECE 252
General Education: QR-B  L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

ECE 353 Introduction to Microprocessor Systems Credits: 3
Introduction to architecture, operation, and application of microprocessors; microprocessor programming; address decoding; system timing; parallel, serial, and analog I/O; interrupts and direct memory access; interfacing to static and dynamic RAM; microcontrollers. Prereq: ECE 352, Comp Sci 354, ECE 340 or concurrent registration
Typically Offered: Fall, Spring

ECE 354 Machine Organization and Programming Credits: 3
An introduction to computer organization using assembly and machine language. Number representation, computer arithmetic, instruction sets, I/O interrupts, and programming interrupts. Projects involve detailed study and use of a specific computer hardware and software system. Prereq: Comp Sci 302 & ECE/Comp Sci 252
General Education: QR-B  L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

ECE 355 Electromechanical Energy Conversion Credits: 3
Energy storage and conversion, force and emf production, coupled circuit analysis of systems with both electrical and mechanical inputs. Applications to electric motors and generators and other electromechanical transducers. Prereq: ECE 230, ECE 320
Typically Offered: Spring
E C E 356 Electric Power Processing for Alternative Energy Systems Credits: 3
Introduction to electrical power processing technologies that are necessary to convert energy from alternative sources into useful electrical forms. Several specific alternative energy sources are examined, providing platforms for introducing basic concepts in power electronics, electric machines, and adjustable-speed drives. Prereq: ECE 230 or ECE 376 or equiv or cons inst
Typically Offered: Fall

E C E 370 Advanced Laboratory Credits: 2
Experiments related to the required core material. Prereq: ECE 271, ECE 320, ECE 330, ECE 335, ECE 351
Typically Offered: Fall, Spring, Summer

E C E 376 Electrical and Electronic Circuits Credits: 3
DC and AC electrical circuit analysis methods, and analog and digital circuit design and analysis including operational amplifier linear circuits, digital combinational logic circuits, and computer interface circuits which combine both digital and analog devices for interfacing physical systems. Includes five laboratory sessions.
Prereq: Math 222 & Physics 202
Typically Offered: Fall, Spring

E C E 377 Fundamentals of Electrical and Electro-mechanical Power Conversion Credits: 3
Fundamentals of electromagnetic induction and application to transformers and induction heating; Lorentz forces with a focus on the operation and control of DC and AC motors and linear actuators; electrical power conversion using power electronics for motor drives and direct power converters. Includes five laboratory sessions.
Prereq: Math 234, familiarity with ordinary differential equations, Physics 202 & ECE 376
Typically Offered: Fall, Spring

E C E 379 Special Topics in Electrical and Computer Engineering Credits: 1 - 4
Topics of special interest to undergrads in electrical and computer engineering. Prereq: So St and cons inst
Typically Offered: Occasionally

E C E 399 Independent Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E C E 401 Electro-Acoustical Engineering Credits: 3
Principles of plane and spherical sound waves; acoustical, mechanical, and electrical analogies; electroacoustic transducer materials and techniques; specific types of transducers such as microphones and loudspeakers.
Prereq: ECE 330
Typically Offered: Fall

E C E 411 Introduction to Electric Drive Systems Credits: 3
Basic concepts of electric drive systems. Emphasis on system analysis and application. Topics include: dc machine control, variable frequency operation of induction and synchronous machines, unbalanced operation, scaling laws, adjustable speed drives, adjustable torque drives, coupled circuit modelling of ac machines.
Prereq: ECE 355
Typically Offered: Fall

E C E 412 Power Electronic Circuits Credits: 3
Operating characteristics of power semiconductor devices such as Bipolar Junction Transistors, IGBTs, MOSFETs and Thyristors. Fundamentals of power converter circuits including dc/dc converters, phase controlled ac/dc rectifiers and dc/ac inverters. Practical issues in the design and operation of converters. Course available on videotape. Prereq: ECE 342 or equiv or cons inst
Typically Offered: Spring

E C E 420 Electromagnetic Wave Transmission Credits: 3
Transmission lines: frequency domain analysis of radio frequency and microwave transmission circuits including power relations and graphical and computer methods. Electromagnetic waves: planar optical components, pulse dispersion, phase front considerations for optical components, conducting waveguides, dielectric waveguides. Radiation: retarded potentials, elemental dipoles, radiating antenna characterization, receiving mode. Prereq: ECE 320
Typically Offered: Fall, Spring
E C E 427 Electric Power Systems Credits: 3
The electric power industry, operation of power systems, load flow, fault calculations, economic dispatch, general technical problems of electric power networks. Prereq: ECE 330 or equiv
Typically Offered: Fall

E C E 431 Digital Signal Processing Credits: 3
Sampling continuous-time signals and reconstruction of continuous-time signals from samples; spectral analysis of signals using the discrete Fourier transform; the fast Fourier transform and fast convolution methods; z-transforms; finite and infinite impulse response filter design techniques; signal flow graphs and introduction to filter implementation. Prereq: ECE 330
Typically Offered: Fall

E C E 432 Digital Signal Processing Laboratory Credits: 3
Implementation of digital signal processing algorithms on special-purpose and general-purpose hardware. Use of assembly and high-level languages, and simulator to develop and test IIR, FIR filters and the FFT for modern DSP chips. Scaling for fixed point arithmetic. Use of high level languages to implement real time, object oriented component based DSP systems in general purpose computers. DSP applications, including data and voice communication systems. Prereq: ECE 431, Comp Sci 302
Typically Offered: Spring

E C E 434 Photonics Credits: 3
Introduction to ray optics, physical optics and interference, applications of Fourier optics, absorption, dispersion, and polarization of light. Second half of the course treats light sources, including lasers (gas, solid state, and semiconductor), modulation and detection of light. Prereq: ECE 320, ECE 335 or con reg
Typically Offered: Spring

E C E 435 Introduction to Cryptography Credits: 3
Cryptography is the art and science of transmitting digital information in a secure manner. This course will provide an introduction to its technical aspects. Prereq: Math 320 or 340 or cons inst. Open to Fr
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E C E 436 Communication Systems I Credits: 3
Amplitude, frequency, pulse, and pulse-code modulation. Narrow-band noise representation and signal-to-noise ratios for various modulation schemes. Pulse shaping, timing recovery, carrier synchronization, and equalization. Sampling, quantization and coding. Prereq: ECE 331
Typically Offered: Fall

E C E 437 Communication Systems II Credits: 3
Statistical analysis of information transmission systems. Probability of error, design of receivers for digital transmission through additive white Gaussian noise channels and bandlimited channels. Spread spectrum communication systems. Channel capacity, source and error control coding. Prereq: ECE 331; ECE 436 or con reg
Typically Offered: Spring

E C E 439 Introduction to Robotics Credits: 3
A system engineering approach to robotic science and technology. Fundamentals of manipulators, sensors, actuators, end effectors and product design for automation. Kinematics, control, and programming of manipulators, along with introduction to pattern recognition and computer vision. Prereq: ME 340 or ECE 332 or equiv & familiarity with a high level programming language such as Pascal, C, or Matlab
Typically Offered: Spring

E C E 440 Electromagnetic Fields and Waves Credits: 3
Laplace's and Poisson's equations; conformal mapping and boundary value problems; Maxwell's equations; boundary conditions, plane wave propagation, reflection and refraction at oblique incidence, surface impedance concept; ionized media; anisotropic materials; radiation from antennas. Prereq: ECE 420 or cons inst
Typically Offered: Fall

E C E 445 Semiconductor Physics and Devices Credits: 3
Physics and properties of semiconductors, p-n junctions, metal-semiconductor contacts, homojunction and heterojunction bipolar transistor and physics, metal-oxide-semiconductor and heterostructure field-effect transistor and physics, thin-film resistors, memory devices, quantum devices. Prereq: ECE 335
Typically Offered: Spring
ECE 447 Applied Communications Systems Credits: 3
Analysis with design problems of electronic communications circuits. Emphasis on the nonlinear effects of large-signal operation of active devices. Complete design of r.f. oscillator, amplifier, and mixer circuits. Prereq: ECE 340; ECE 420 recommended
Typically Offered: Fall

ECE 453 Embedded Microprocessor System Design Credits: 4
Hardware and software design for modern microprocessor-based embedded systems; study of the design process; emphasis on major team design project. Prereq: ECE 315 & 353
Typically Offered: Spring

ECE 454 Mobile Computing Laboratory Credits: 4
End-to-end project management; teamwork; fundamentals of disciplined development practices; introduction to mobile computing platforms and systems; design, implementation, and deployment of mobile systems and applications. Prereq: Computer Engineering Sr st or cons inst
Typically Offered: Fall

ECE 461 Mathematical and Computer Modeling of Physiological Systems Credits: 3
Mathematical and computer modeling of physiological systems; principal emphasis on cardiovascular system and individual nerve cells; other topics include respiratory system and skeletal-muscle system; extensive use of "hands-on" computer modeling using ACSL. Prereq: ECE 330 or cons inst
Typically Offered: Spring

ECE 462 Medical Instrumentation Credits: 3
Design and application of electrodes, biopotential amplifiers, biosensors, therapeutic devices. Medical imaging. Electrical safety. Measurement of ventilation, blood pressure and flow. Lecture and lab. Prereq: ECE 342 or cons inst
Typically Offered: Fall

ECE 463 Computers in Medicine Credits: 3
Study of microprocessor-based medical instrumentation. Emphasis on real-time analysis of electrocardiograms. Labs and programming project involve design of biomedical digital signal processing algorithms. Prereq: ECE 330, Comp Sci 302
Typically Offered: Fall

ECE 466 Electronics of Solids Credits: 3
Electronic, optical and thermal properties of crystalline solids. Energy-momentum dispersion of fundamental particles and excitations in solids leading to microscopic theories of conductivity, polarizability and permeability. Influence of materials characteristics on the performance of electronic and photonic devices. Prereq: ECE 335, 305, or consent of instructor
Typically Offered: Spring

ECE 489 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Not available for graduate credit. Prereq: Admission to ECE honors in research prgm
Typically Offered: Fall, Spring, Summer

ECE 491 Senior Design Project Credits: 3
Engineering design projects supervised by faculty members. Not available for graduate credit. Prereq: Sr st & cons inst
Typically Offered: Fall, Spring, Summer

ECE 504 Electric Machine & Drive System Laboratory Credits: 2 - 3
Steady state and dynamic performance of electric machines in combination with power electronic converters. Parameter measurement, performance evaluation, design of experimental procedures for problem solving, use of digital data acquisition systems and signal processing equipment in system evaluation. Prereq: ECE 304 and 411 or con reg 411 and cons inst
Typically Offered: Spring
ECE 506 Software Engineering  Credits: 3
Ideas and techniques for designing, developing, and modifying large software systems. Topics include software engineering processes; requirements and specifications; project team organization and management; software architectures; design patterns; testing and debugging; and cost and quality metrics and estimation. Students will work in large teams on a substantial programming project. Prereq: COMPSCI 367 and at least one of COMPSCI 407, 536, 537, 545, 552, 559, 564, 570, or 679
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ECE 511 Theory and Control of Synchronous Machines  Credits: 3
The idealized three phase synchronous machine time domain model including saliency, time invariant form using Park's transformation, sudden short circuits and other transient conditions, reduced order models, excitation system and turbine/governor control, dynamics of multiple machine systems, transient stability and subsynchronous resonance. Prereq: ECE 355, ECE 427, or cons inst
Typically Offered: Fall

ECE 512 Power Electronics Laboratory  Credits: 3
This laboratory introduces the student to measurement and simulation of important operating characteristics of power electronic circuits and power semiconductor devices. Emphasis is on devices, circuits, gating methods and power quality. Prereq: ECE 412 or consent required
Typically Offered: Fall

ECE 524 Introduction to Optimization  Credits: 3
Introduction to mathematical optimization from a modeling and solution perspective. Formulation of applications as discrete and continuous optimization problems and equilibrium models. Survey and appropriate usage of basic algorithms, data and software tools, including modeling languages and subroutine libraries. Prereq: COMP SCI 302 and MATH 320 or 340
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECE 525 Introduction to Plasmas  Credits: 3
Basic description of plasmas: collective phenomena and sheaths, collisional processes, single particle motions, fluid models, equilibria, waves, electromagnetic properties, instabilities, and introduction to kinetic theory and nonlinear processes. Examples from fusion, astrophysical and materials processing processing plasmas. Prereq: One crse in electromagnetic fields beyond elem physics
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECE 527 Plasma Confinement and Heating  Credits: 3
Principles of magnetic confinement and heating of plasmas for controlled thermonuclear fusion: magnetic field structures, single particle orbits, equilibrium, stability, collisions, transport, heating, modeling and diagnostics. Discussion of current leading confinement concepts: tokamaks, tandem mirrors, stellarators, reversed field pinches, etc. Prereq: NEEP/Phys/ECE 525 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECE 528 Plasma Processing and Technology  Credits: 3
Introduction to basic understanding and techniques. Plasma processing of materials for semiconductors, polymers, plasma spray coatings, ion implantation, etching, arcs, extractive metallurgy and welding. Plasma and materials diagnostics. Prereq: Physics 322 or ECE 320 or equiv or cons inst
Typically Offered: Occasionally

ECE 532 Theory and Applications of Pattern Recognition  Credits: 3
Pattern recognition systems and components; decision theories and classification; discriminant functions; supervised and unsupervised training; clustering; feature extraction and dimensional reduction; sequential and hierarchical classification; applications of training, feature extraction, and decision rules to engineering problems. Prereq: ECE 331 or Math 431 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ECE 533 Image Processing  Credits: 3
Mathematical representation of continuous and digital images; models of image degradation; picture enhancement, restoration, segmentation, and coding; pattern recognition, tomography. Prereq: ECE 330 or cons inst; Math 320 or 340 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
E C E 536 Integrated Optics and Optoelectronics Credits: 3
This course introduces the student to the physical principles, design concepts, and technological consequences of passive, electro-optic, and optic-electronic guided wave devices. Prereq: ECE 320, 335, & ECE 434 or 420 or cons inst
Typically Offered: Fall

E C E 537 Communication Networks Credits: 3
Study of communication networks with focus on performance analysis. Layered network structure. Basic protocol functions such as addressing, multiplexing, routing, forwarding, flow control, error control, and congestion response. Overview of transport, network, and link layer protocol standards. Introduction to wireless and mobile networks. Prereq: ECE 203, Comp Sci 367
Typically Offered: Spring

E C E 539 Introduction to Artificial Neural Network and Fuzzy Systems Credits: 3
Theory and applications of artificial neural networks and fuzzy logic: multi-layer perceptron, self-organization map, radial basis network, Hopfield network, recurrent network, fuzzy set theory, fuzzy logic control, adaptive fuzzy neural network, genetic algorithm, and evolution computing. Applications to control, pattern recognition, nonlinear system modeling, speech and image processing. Prereq: Comp Sci 302, or Comp Sci 310, or knowledge of C programming lang
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E C E 541 Analog MOS Integrated Circuit Design Credits: 3
Analysis, design and applications of modern analog circuits using integrated bipolar and field-effect transistor technologies. Provides the student with a working knowledge of the basic circuits used in modern analog integrated circuits and techniques for analysis and design. Prereq: ECE 342 or ECE 340 & cons inst
Typically Offered: Fall

E C E 542 Introduction to Microelectromechanical Systems Credits: 3
Introduction to MEMS technology, devices and systems. Fundamentals of MEMS in fabrication, process integration, material mechanics of MEMS structures, sensors and actuators. Main topics in MEMS - microfluidics, optical MEMS, RF MEMS, BioMEMS, packaging, and CAD. Prereq: ECE 335 or 340, or cons inst
Typically Offered: Fall

E C E 544 Processing of Electronic Materials Credits: 3
Physics and chemistry principles underlying microelectronic materials processing. Effects of processing on materials and structures important in microelectronic and opto-electronic devices. Prereq: CBE 440 or MS&E 351 or ECE 335; or cons inst
L&S Level: Intermediate  Typically Offered: Occasionally

E C E 545 Advanced Microwave Measurements for Communications Credits: 3
Measurements at VHF and microwave frequencies; characteristics of microwave generators, amplifiers, passive devices and detection systems; measurement of frequency, noise and simple antenna patterns; time domain reflectometry, swept frequency network and spectrum analyzer techniques; lecture and lab. Prereq: ECE 301, ECE 444 or cons inst
Typically Offered: Spring

E C E 546 Lasers Credits: 2 - 3
General principles of laser operation; laser oscillation conditions; optical resonators; methods of pumping lasers, gas discharge lasers, e-beam pumped lasers, solid state lasers, chemical lasers, and dye lasers; gain measurements with lasers; applications of lasers. Prereq: Physics 322 or ECE 420 or equiv; Physics 545, or 449 or 531
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E C E 547 Advanced Communications Circuit Design Credits: 3
Principles underlying the design of r.f. and microwave communications circuits. Analysis and design of wideband nonlinear power amplifiers, S-parameter techniques for r.f. active circuit design, computer aided design techniques, r.f. integrated circuits, fundamentals of low noise r.f. design. Prereq: ECE 447, ECE 420 or con reg, or cons inst
Typically Offered: Spring
E C E  548 Integrated Circuit Design  Credits: 3  
Bipolar and MOS devices in monolithic circuits. Device physics, fabrication technology. IC-design for linear and nonlinear circuitry.  Prereq:  ECE 335  
Typically Offered:  Fall

E C E  549 Integrated Circuit Fabrication Laboratory  Credits: 3  
Monolithic integrated circuit fabrication; mask making, photolithography, oxidation, diffusion, junction evaluation, metallization, packaging, and testing.  Prereq:  ECE 548 or cons inst  
Typically Offered:  Spring

E C E  551 Digital System Design and Synthesis  Credits: 3  
Typically Offered:  Fall, Spring

E C E  552 Introduction to Computer Architecture  Credits: 3  
The design of computer systems and components. Processor design, instruction set design, and addressing; control structures and microprogramming; memory management, caches, and memory hierarchies; and interrupts and I/O structures.  Prereq:  ECE/Comp Sci 352 & Comp Sci/ECE 354  
L&S Breadth:  Physical Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

E C E  553 Testing and Testable Design of Digital Systems  Credits: 3  
Faults and fault modeling, test equipment, test generation for combinational and sequential circuits, fault simulation, memory and microprocessor testing, design for testability, built-in self-test techniques, and fault location.  Prereq:  ECE/Comp Sci 352; Comp Sci 367; ECE 353 or cons inst  
Typically Offered:  Fall

E C E  554 Digital Engineering Laboratory  Credits: 4  
Practical aspects of computer system design. Design, construction, and testing of significant digital subsystems. Design, construction, and programming of pipelined digital computers.  Prereq:  ECE 352; ECE/Comp Sci 552  
Typically Offered:  Fall, Spring

E C E  555 Digital Circuits and Components  Credits: 3  
Principles and characterization of logic circuits. Design and analysis techniques for applied logic circuits. Transmission lines in digital applications. Families of circuit logic currently in use and their characteristics.  Prereq:  ECE 340; ECE/Comp Sci 352  
Typically Offered:  Occasionally

E C E  556 Design Automation of Digital Systems  Credits: 3  
Use of digital computers to simulate, partition, place and interconnect digital electronic systems.  Prereq:  ECE/Comp Sci 352; Comp Sci 367; or consent of instructor  
Typically Offered:  Fall

E C E  577 Automatic Controls Laboratory  Credits: 4  
Control theory is reduced to engineering practice through the analysis and design of actual systems in the laboratory. Experiments are conducted with modern servo systems using both analog and digital control. Systems identification and modern controls design are applied to motion and torque control.  Prereq:  ME 446 & 447 or ECE 332 & 416 or cons inst  
Typically Offered:  Spring

E C E  600 Seminar in Electrical and Computer Engineering  Credits: 0  
Weekly or bi-weekly seminars on topics in electrical and computer engineering including automatic control, biomedical engineering, communications and signal processing, computer engineering, electromagnetic fields, energy and power systems, photonics, plasma, and solid state. Seminar on a particular topic may include lectures given by faculty, invited speakers, as well as group discussion.  Prereq:  Cons inst  
Typically Offered:  Fall, Spring

E C E  601 Special Topics in Electrical and Computer Engineering  Credits: 1 - 4  
Advanced topics of special interest to students in various areas of Electrical and Computer Engineering.  Prereq: Jr st & cons inst  
Typically Offered:  Occasionally
E C E  630 All of Signal Processing  Credits: 3
A broad range of basic and advanced signal processing concepts presented in a MATLAB intensive, application
driven environment designed to acquaint students with the fundamental ideas and language of signal processing.
Prereq:  Grad st; Math 222; and Stat 311, 324 or 371; or cons inst
Typically Offered:  Spring

E C E  641 Introduction to Error-Correcting Codes  Credits: 3
A first course in coding theory.  Codes (linear, Hamming, Golay, dual); decoding-encoding; Shannon's theorem;
sphere-packing; singleton and Gilbert-Varshamov bounds; weight enumerators; MacWilliams identities; finite
fields; other codes (Reed-Muller, cyclic, BCH, Reed-Solomon) and error-correction algorithms.  Prereq:  Math
320 or 340, and Math 541 or cons inst
L&S Breadth:  Natural Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

E C E  699 Advanced Independent Study  Credits: 1 - 6
Prereq:  Cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

E C E  702 Graduate Cooperative Education Program  Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with
a background on which to develop and enhance a professional career.  The work experience is tailored for MS
students from within the U.S. as well as eligible international students.  Prereq:  Graduate or professional
standing
Typically Offered:  Occasionally

E C E  707 Mobile and Wireless Networking  Credits: 3
Design and implementation of protocols, systems, and applications for mobile and wireless networking,
particularly at the media access control, network, transport, and application layers.  Focus is on the unique
problems and challenges presented by the properties of wireless transmission, various device constraints such as
limited battery power, and node mobility.  Prereq:  Comp Sci 640 or ECE 537 or cons inst
Typically Offered:  Occasionally

E C E  711 Dynamics and Control of AC Drives  Credits: 3
Principles of power converters, two axis models of AC machines and AC drives, simulation of drive systems,
analytical modeling of drives, dynamic behavior of induction and synchronous motors and drive systems.  Offered
every third semester.  Prereq:  ECE 332 & 411 or cons inst
Typically Offered:  Occasionally

E C E  712 Solid State Power Conversion  Credits: 3
Advanced course in power electronics which provides an understanding of switching power converters.  Included
are DC-to-DC, AC-to-DC, DC-to-AC, and AC-to-AC converters, commutation techniques, converter control,
interfacing converters with real sources and loads.  Offered every third semester.  Prereq:  ECE 412 or cons inst
Typically Offered:  Occasionally

E C E  713 Electromagnetic Design of AC Machines  Credits: 3
Electromagnetic design concepts and application to AC machines, magnetic circuit concepts, calculation of
equivalent circuit parameters of induction, synchronous and permanent magnet machines from geometric data,
copper and iron loss calculations, theory and application of finite elements to electromagnetic devices.  Offered
every third semester.  Prereq:  ECE 411 or 511 or equiv
Typically Offered:  Occasionally

E C E  714 Utility Application of Power Electronics  Credits: 3
Power electronic application to utility systems is a rapidly growing field with major impact on the industry.  This
course will cover material on HVDC transmission, energy storage systems, renewable sources, static
compensators, and flexible ac transmission systems.  Prereq:  ECE 412, ECE 427, cons inst
Typically Offered:  Occasionally

E C E  717 Linear Systems  Credits: 3
Equilibrium points and linearization; natural and forced response of state equations; system equivalence and
Jordan form; Lyapunov, asymptotic, and BIBO stability; controllability and duality; control-theoretic concepts such
as pole-placement, stabilization, observers, dynamic compensation, and the separation principle.  Prereq:  Math
340 or cons inst
Typically Offered:  Occasionally
ECE 719 Optimal Systems  Credits: 3
Optimality considerations in the study of dynamical systems; applications to electrical systems gain selection, tuning, conditions for optimality, feedback and instability, iterative methods, filtering, prediction, smoothing, dynamic programming controller synthesis, stability and robustness criteria. Prereq: ECE 334 or cons inst
Typically Offered: Occasionally

ECE 723 On-Line Control of Power Systems  Credits: 3
Typically Offered: Occasionally

ECE 724 Waves and Instabilities in Plasmas  Credits: 3
Waves in a cold plasma, wave-plasma interactions, waves in a hot plasma, Landau damping, cyclotron damping, magneto-hydrodynamic equilibria and instabilities, microinstabilities, introduction to nonlinear processes, and experimental applications. Prereq: NEEP/ECE/Physics 525 & Physics 721 or ECE 740 or cons inst
Typically Offered: Occasionally

ECE 725 Plasma Kinetic Theory and Radiation Processes  Credits: 3
Coulomb Collisions, Boltzmann equation, Fokker-Planck methods, dynamical friction, neoclassical diffusion, collision operators radiation processes and experimental applications. Prereq: Physics, ECE, NEEP 525 & Physics 721 or ECE 740 or cons inst
Typically Offered: Occasionally

ECE 726 Plasma Magnetohydrodynamics  Credits: 3
MHD equations and validity in hot plasmas; magnetic structure and magnetic flux coordinates; equilibrium in various configurations; stability formulation, energy principle, classification of instabilities; ideal and resistive instability in various configurations, evolution of nonlinear tearing modes; force-free equilibria, helicity, MHD dynamo; experimental applications. Prereq: NEEP/ECE/Physics 525 & Physics 721 or ECE 740 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECE 729 Theory of Information Processing and Transmission  Credits: 3
Definition of measures of information and their properties, capacity of discrete and continuous channels with noise, source and channel coding theorems, fundamentals of channel coding, noiseless source coding, and source coding with a fidelity criterion. Prereq: ECE 331 or Math 431 or cons inst
Typically Offered: Occasionally

ECE 730 Modern Probability Theory and Stochastic Processes  Credits: 3
Stochastic processes in linear and nonlinear systems; stationarity, continuity, ergodicity; power spectrum and systems; estimation theory, filtering and prediction; harmonic analysis; nonstationary normal processes. Prereq: ECE 331 or equiv
Typically Offered: Occasionally

ECE 731 Advanced Power System Analysis  Credits: 3
Electrical transients due to faults and switching. Effect on power system design and operation. Traveling waves and surge protection. Computerized analysis of power transients. Prereq: Con reg ECE 511 or cons inst
Typically Offered: Occasionally

ECE 734 VLSI Array Structures for Digital Signal Processing  Credits: 3
An overview of the architectures and design methodologies of VLSI array processors for digital signal processing. Emphasis is placed on the techniques of mapping algorithms onto array structures for real time signal processing. Prereq: ECE 431, 552, or equiv, or cons inst
Typically Offered: Occasionally

ECE 735 Signal Synthesis and Recovery Techniques  Credits: 3
Signals and their representation. Signal synthesis subject to constraints on peak voltage, energy, duration-bandwidth product. The theory of alternating projections onto convex sets and applications to inverse problems in signal processing: signal recovery using incomplete data, image recovery in tomography using limited views, phase retrieval in optical astronomy. Prereq: ECE 431 or 533 or cons inst
Typically Offered: Occasionally
E C E 736 Wireless Communications Credits: 3
Theory, design and analysis of mobile wireless communication systems from a signal processing perspective. Emphasis on code-division multiple-access (CDMA) systems employing direct-sequence spread-spectrum (DS-SS) signaling. Topics include characterization of mobile wireless channels, demodulation of DS-SS signals, diversity techniques, interference suppression methods, and low-complexity adaptive receivers. Prereq: ECE 437 or equiv & ECE 730, or cons inst. ECE 732 recommended
Typically Offered: Occasionally

E C E 738 Advanced Digital Image Processing Credits: 3
Deterministic and stochastic spatio-temporal image models, transform domain processing, Markov random fields and anisotropic diffusion; MAP parameter estimation, ill-posed inverse problems, robust statistics and non-linear digital filtering in image processing. Applications to image restoration, motion estimation, (video) image compression (MPEG, JPEG) and tomography. Prereq: ECE 533 or cons inst
Typically Offered: Occasionally

E C E 739 Advanced Robotics Credits: 3
In-depth study of advanced robotics modeling and control. Topics include kinematics, motion planning, dynamics and control of serial chain robotic manipulators. Concepts are explored through a combination of theoretical and numerical modeling techniques. Prereq: ME 446 or ECE 332 or equiv; Math 320 or 340; Familiarity with high level computational programming language such as Matlab, or consent of instructor
Typically Offered: Occasionally

E C E 740 Electromagnetic Theory Credits: 3
Time harmonic fields and waves in linear media with applications to radiation, guiding and scattering; wave and surface impedance and admittance concepts; duality, uniqueness, image theory, equivalence principle, induction and compensation theorems, reciprocity, Green's functions, wave functions, potential and transform theory. Prereq: ECE 420 or cons inst
Typically Offered: Occasionally

E C E 741 Semiconductor Diode Lasers and other Optoelectronic Devices Credits: 3
In the first part of the course this modern photonic technology will be overviewed, and key parameters and concepts will be introduced. In the second part, the basic mechanisms determining the relationship between optical gain and current density, as well as quantum-well laser structures will be treated. The third part will cover the physics of high-power phase-locked laser arrays or other optoelectronics devices. Prereq: ECE 320, ECE 335 or equiv; Physics 244 or 241, some basic electromagnetics & optics
Typically Offered: Occasionally

E C E 742 Computational Methods in Electromagnetics Credits: 3
Computational techniques for solving differential and integral equations that govern static, frequency-domain, and time-domain electromagnetic field phenomena. Applications of the finite-difference time-domain method, finite-element method, and method of moments to practical electromagnetics engineering problems. Prereq: ECE 420 or equiv & fluency in a high-level programming lang; Comp Sci 412 or equiv recommended
Typically Offered: Occasionally

E C E 743 High-Power Diode Lasers and Amplifiers Credits: 3
In the first part, the basics of single-mode diode lasers and amplifiers as well as their applications will be treated. The second part will include in-depth treatment of the four basic types of high-power coherent diodes: phase-locked arrays, master-oscillator power amplifiers, unstable resonators, and external-cavity-controlled resonators. Prereq: ECE 320, ECE 335 or equiv; Physics 244 or 241, some basic electromagnetics and optics
Typically Offered: Occasionally

E C E 744 Theory of Microwave Circuits and Devices Credits: 3
Scattering matrices; symmetrical junctions; impedance and ABCD matrices; equivalent circuits. Wave propagation in periodic structures and anisotropic media; Floquet's theorem; Brillouin diagrams; Hartree harmonics; tensor permeability, conductivity, and permittivity; coupled wave equations; normal modes; applications in ferrite devices. Prereq: ECE 444 or ECE 740 or cons inst
Typically Offered: Occasionally

E C E 745 Solid State Electronics Credits: 3
Physical principles underlying the action of semiconductor devices, chemical bonding and energy band structure, Boltzmann transport theory, optical and high frequency effects, diffusion and drift, interfaces, properties of elemental and compound semiconductors. Prereq: Cons inst
Typically Offered: Occasionally
E C E 746 Quantum Electronics Credits: 3
Elementary aspects of Lagrange theory of fields and field quantization; Bose, Fermi and Pauli operators; interaction of fields; quantum theory of damping and fluctuations; applications to lasers, nonlinear optics, and quantum optics. Prereq: ECE-Physics 546; Physics 721 or ECE 740
Typically Offered: Occasionally

E C E 748 Linear Waves Credits: 3
General considerations of linear wave phenomena; one dimensional waves; two and three dimensional waves; wave equations with constant coefficients; inhomogenous media; random media. Lagrangian and Hamiltonian formulations; asymptotic methods. Prereq: ECE 440 or Physics 322 or cons inst
Typically Offered: Occasionally

E C E 749 Coherent Generation and Particle Beams Credits: 3
Fundamental theory and recent advances in coherent radiation charged particle beam sources (microwave to X-ray wavelengths) including free electron lasers, wiggler/wave-particle dynamics, Cerenkov masers, gyrotrons, coherent gain and efficiency, spontaneous emission, beam sources and quality, related accelerator concepts experimental results and applications. Prereq: ECE 740 or Physics 721, or equiv, or cons inst
Typically Offered: Occasionally

E C E 750 Real-time Computing Systems Credits: 3
Introduction to the unique issues in the design and analysis of computer systems for real-time applications. Hardware and software support for guaranteeing timeliness with and without failures. Resource management, time-constrained communication, scheduling and imprecise computations, real-time kernels and case studies. Prereq: ECE/Comp Sci 552 & Comp Sci 537 or cons inst
Typically Offered: Occasionally

E C E 751 Embedded Computing Systems Credits: 3
Embedded applications, embedded processors and multiprocessors, embedded system design and simulation, configurable/reconfigurable embedded systems, embedded compilers and tool chains, run-time systems, application design and customization, hardware and software co-design, low-power design. Prereq: ECE 552
Typically Offered: Occasionally

E C E 752 Advanced Computer Architecture I Credits: 3
Processor design, computer arithmetic, pipelining, multi-operation processors, vector processors, control units, precise interrupts, main memory, cache memories, instruction set design, stack machines, busses and I/O, protection and security. Prereq: ECE, Comp Sci 552 & Comp Sci 537
Typically Offered: Occasionally

E C E 753 Fault-Tolerant Computing Credits: 3
Fault modeling, redundancy techniques and reliability evaluation, error detecting and correcting codes, self-checking circuits, fault diagnosis, software fault tolerance, and case studies. Prereq: ECE/Comp Sci 552, Math/Stat 431 or equiv, or cons inst
Typically Offered: Occasionally

E C E 755 VLSI Systems Design Credits: 3
Overview of MOS devices and circuits; introduction to integrated circuit fabrication; topological design of data flow and control; interactive graphics layout; circuit simulation; system timing; organizational and architectural considerations; alternative implementation approaches; design project. Prereq: ECE 340, ECE/Comp Sci 352, ECE/Comp Sci 552
Typically Offered: Occasionally

E C E 756 Computer-Aided Design for VLSI Credits: 3
Broad introduction to computer-aided design tools for VLSI, emphasizing implementation algorithms and data structures. Topics covered: design styles, layout editors, symbolic compaction, module generators, placement and routing, automatic synthesis, design-rule checking, circuit extraction, simulation and verification. Prereq: Comp Sci 367, good programming skills, Comp Sci/ECE 755 strongly recommended, Comp Sci/ECE 352
Typically Offered: Occasionally
E C E 757 Advanced Computer Architecture II Credits: 3
Parallel algorithms, principles of parallelism detection and vectorizing compilers, interconnection networks, SIMD/MIMD machines, processor synchronization, data coherence, multis, dataflow machines, special purpose processors. Prereq: Comp Sci, ECE 752
Typically Offered: Occasionally

E C E 759 High Performance Computing for Applications in Engineering Credits: 3
An overview of hardware and software solutions that enable the use of advanced computing in tackling computationally intensive Engineering problems. Hands-on learning promoted through programming assignments that leverage emerging hardware architectures and use parallel computing programming languages. Prereq: COMP SCI 302 or COMP SCI 368
Typically Offered: Fall

E C E 761 Advanced Machine Learning Credits: 3
Advanced computational approaches to learning. Quantification of learnability and rate of learning, probabilistic and other formalisms of learning, statistical and computational analysis of learning models, state-of-the-art learning algorithms. Prereq: COMP SCI 760
Typically Offered: Occasionally

E C E 762 Biomedical Instrumentation Credits: 3
Design and application of specialized biomedical instrumentation. Information retrieval techniques. Lab. Prereq: ECE 462 or cons inst
Typically Offered: Occasionally

E C E 763 Projects in Computers in Medicine Credits: 3
Applications of digital computers to the solution of problems in clinical and research medicine. Hardware and software student projects. Prereq: ECE 463
Typically Offered: Occasionally

E C E 777 Nonlinear Dynamics, Bifurcations and Chaos Credits: 3
Advanced interdisciplinary introduction to qualitative and geometric methods for dissipative nonlinear dynamical systems. Local bifurcations of ordinary differential equations and maps. Chaotic attractors, horseshoes and detection of chaos. Prereq: Cons inst
Typically Offered: Occasionally

E C E 790 Master's Research or Thesis Credits: 1 - 9
Prereq: Grad st, for Master's candidates only
Typically Offered: Occasionally

E C E 817 Nonlinear Systems Credits: 3
Modelling nonlinear systems, linearization, equilibria, solution concepts, phase plane analysis, stability concepts, Lyapunov methods, oscillations, vector space methods, control system nonlinearities and design. Selected topics from the following: input-output methods, switching and variable structure systems, feedback linearization, and Lyapunov robustness. Prereq: ECE 717 or equiv
Typically Offered: Occasionally

E C E 821 Optimal Control and Variational Methods Credits: 3
Variational methods in optimal control, functional analytic and vector space tools, time-optimal control and reachable sets, the Pontryagin Maximum Principle, linear quadratic regulators, stability of optimized systems, introduction to H-infinity control. Prereq: ECE 717 or equiv
Typically Offered: Occasionally

E C E 830 Estimation and Decision Theory Credits: 3
Estimation and decision theory applied to random processes and signals in noise: Bayesian, maximum likelihood, and least squares estimation; the Kalman filter; maximum likelihood and maximum aposteriori detection; adaptive receivers for channels with unknown parameters or dispersive, fading characteristics; the RAKE receiver; detection systems with learning features. Prereq: ECE 730 or equiv
Typically Offered: Occasionally
E C E  841 Electromagnetic Radiation and Transmission  Credits: 3
Applications of Maxwell's field equations to radiation problems; transmission of radio waves; radiation and impedance characteristics of various antennas and arrays. Analysis of complete antenna systems.  Prereq:  ECE 440 or cons inst
Typically Offered: Occasionally

E C E  842 Topics in Applied Algebra  Credits: 3
Applied topics with emphasis on algebraic constructions and structures. Examples include: algebraic coding theory; codes (algebraic-geometric, convolutional, low-density-parity-check, space-time); curve and lattice based cryptography; watermarking; computer vision (face recognition, multiview geometry).  Prereq:  Cons inst
Typically Offered: Occasionally

E C E  845 Transport in Semiconductor Devices  Credits: 3
Transport of carriers in electronic devices, starting from the Boltzmann equation and the quantum mechanical treatment of scattering, and covering applications to devices; transport in 2D structures; modeling of transport; experiments and devices involving hot electrons.  Prereq:  ECE 745
Typically Offered: Occasionally

E C E  848 Nonlinear Waves  Credits: 3
General considerations of nonlinear wave phenomena; nonlinear hyperbolic waves; nonlinear dispersion; nonlinear geometrical optics; Whitham's variational theory; nonlinear and parametric instabilities; solitary waves; inverse scattering method.  Prereq:  ECE 748 or cons inst
Typically Offered: Occasionally

E C E  890 Pre-Dissertation's Research  Credits: 1 - 9
Prereq:  Grad st, for post-master's, pre-dissertation stdts only
Typically Offered: Occasionally

E C E  901 Special Topics in Communications  Credits: 1 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

E C E  902 Special Topics in Computers  Credits: 1 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

E C E  908 Special Topics in Plasmas and Controlled Fusion  Credits: 1 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

E C E  922 Seminar in Plasma Physics  Credits: 0 - 1
Prereq:  Graduate or professional standing
Typically Offered: Occasionally

E C E  990 Research or Thesis  Credits: 1 - 12
Prereq:  Dissertator status
Typically Offered: Occasionally

E C E  999 Advanced Independent Study  Credits: 1 - 3
Prereq:  Grad st
Typically Offered: Occasionally

ENGINEERING PHYSICS

E P  271 Engineering Problem Solving I  Credits: 3
Solution of engineering problems using commercially-available software tools (spreadsheets, symbolic manipulators, and equation solvers). The emphasis will be on nuclear engineering problems, including radioactive decay, nuclear cross sections, scattering, and criticality.  Prereq:  Math 222, Physics 201
Typically Offered: Fall
E P 272 Engineering Problem Solving Using Maple  Credits: 1
An introduction to multi-step engineering problem solving using Maple (symbolic mathematics) software.  Prereq: MATH 222
Typically Offered: Fall, Spring, Summer

E P 468 Introduction to Engineering Research  Credits: 1
An introduction to the conduct of engineering research: the scientific method, ethics in research, documentation and treatment of research data, publication practices, and the structure of the broader research community are covered.  Prereq: Open to EP majors only
Typically Offered: Fall

E P 469 Research Proposal in Engineering Physics  Credits: 1
An introduction to current research topics in engineering physics. Development of an undergraduate research proposal supervised by faculty members.  Prereq: EP 468. Open to EP majors only
Typically Offered: Spring

E P 471 Intermediate Problem Solving for Engineers  Credits: 3
Use of computational tools for the solution of problems encountered in engineering physics applications. Topics covered include orbital mechanics, structural vibrations, beam and plate deformations, heat transfer, neutron diffusion, and criticality. Emphasis will be on modeling, choice of appropriate algorithms, and model validation.  Prereq: Math 319 & NEEP 271 or Comp Sci 310
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E P 476 Introduction to Scientific Computing for Engineering Physics  Credits: 3
Basic tools of professional scientific computation for UNIX environments are taught. Programming skills in a compiled language are developed through engineering examples. Applications reinforce engineering problem-solving skills first examined in introductory courses, while motivating progressively more advanced computational methods.  Prereq: NEEP 271 or Comp Sci 310; Comp Sci 412 or equivalent; Math 319; or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E P 547 Engineering Analysis I  Credits: 3
Methods of higher mathematics; stress on problem solving rather than rigorous proofs; linear algebra, calculus of variations, Green's function.  Prereq: A year of advanced calculus such as Math 321 & 322
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E P 548 Engineering Analysis II  Credits: 3
Function of complex variable, series solution of different equations, partial differential equations.  Prereq: A year of math beyond calculus
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E P 566 Cryogenics  Credits: 3
Applications of cryogenics, material properties at low temperatures, refrigeration and liquefaction systems, measurement techniques, insulation, storage and transfer of cryogenics, safety and handling.  Prereq: ME 361 or Physics 415, ChE 320 or ME 364
Typically Offered: Occasionally

E P 568 Research Practicum in Engineering Physics I  Credits: 3
Undergraduate research projects supervised by faculty members.  Prereq: EP 468 & 469. Open to EP majors only
Typically Offered: Fall

E P 569 Research Practicum in Engineering Physics II  Credits: 3
Undergraduate research projects supervised by faculty members. Senior thesis.  Prereq: EP 468, 469, & 568. Open to EP majors only
Typically Offered: Fall

E P 602 Special Topics in Engineering Physics  Credits: 1 - 3
Subject matter, credits and prerequisites vary.  Prereqs> Vary
Typically Offered: Occasionally
E P 615 Micro- and Nanoscale Mechanics  Credits: 3
An introduction to micro- and nanoscale science and engineering with a focus on the role of mechanics. A variety of micro- and nanoscale phenomena and applications covered, drawing connections to both established and new mechanics approaches.  Prereq:  EMA 303 or ME 306 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E P 759 High Performance Computing for Applications in Engineering  Credits: 3
An overview of hardware and software solutions that enable the use of advanced computing in tackling computationally intensive Engineering problems. Hands-on learning promoted through programming assignments that leverage emerging hardware architectures and use parallel computing programming languages.  Prereq:  COMP SCI 302 or COMP SCI 368
Typically Offered: Fall

E P 777 Vacuum Technology  Credits: 3
Topics defining modern vacuum technology, including the kinetic theory of gases, conductance, pumping systems, pump technologies, pressure measurement, gas-surface interactions, sealing technologies, leak detection, and residual gas analysis will be addressed through a combination of lectures, laboratory activities, problem solving, and group discussions.  Prereq:  ME 363 and CBE/BME 320
Typically Offered: Occasionally

E P 920 Engineering Physics Graduate Seminar  Credits: 0 - 1
Students will be able to enroll for credit more than once because the topics of the course will differ substantially from semester to semester. Our MS requirements permit up to 3 credits within the 30-credit minimum for the degree.  Prereq:  Graduate or professional standing
Typically Offered: Fall, Spring

ENGR MECHANICS & ASTRONAUTICS

E M A 1 Cooperative Education Program  Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career in industry.  Prereq:  So st
Typically Offered: Fall, Spring, Summer

E M A 110 Introduction to Private Pilot  Credits: 4
The first course of a two-course series to earn a private pilot's license. This first course will teach students all of the ground- school subjects necessary to become a private pilot. Lecture topics include aircraft structure, mechanical systems, flight instruments and avionics, aerodynamics, aircraft performance, aviation meteorology, airport operations, navigation, aeromedical factors, rules and regulations. In-class discussion will center around PC-based simulation scenarios that feature classroom demonstrations of the theory taught online. Students will be charged flight fees for this course. Flight fees may vary, dependent on skill of student and instructor fees. See the class notes fo
Typically Offered: Fall

E M A 201 Statics  Credits: 3
Principles of mechanics, force systems, equilibrium, structures, distributed forces, moments of inertia of areas, and friction.  Prereq:  Math 222 or concurrent registration. Open to Freshmen
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E M A 202 Dynamics  Credits: 3
Kinematics, force-mass-acceleration relations, work and energy, impulse and momentum, moments of inertia and mass.  Prereq:  EMA 201 or 214; and Math 222; or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E M A 291 Projects in Engineering Mechanics & Astronautics  Credits: 1 - 3
Individual engineering projects under staff supervision.  Prereqs> None
Typically Offered: Occasionally
E M A 303 Mechanics of Materials Credits: 3
Stress and strain, torsion, bending of beams, shearing stresses in beams, compound stresses, principal stresses, deflections of beams, statically indeterminate members, columns. For civil engineers. Prereq: EMA 201 & Math 222
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E M A 307 Mechanics of Materials Lab Credits: 1
Data processing, tension/compression tests, creep stress concentrations, fatigue, fracture, composite materials, combined stress, beam flexure, dynamic loads, buckling. Prereq: ME 306 or concurrent registration
Typically Offered: Fall, Spring, Summer

E M A 395 Materials for Constructed Facilities Credits: 3
Properties and tests of materials used in the initial construction or repair of facilities (including buildings, transportation systems, utility systems, and reinforced earth). Introduction to laboratory and field measurement techniques to assess material performance capabilities. Technical report preparation. Prereq: EMA 303 & 307
Typically Offered: Spring

E M A 405 Practicum in Finite Elements Credits: 3
Use of finite elements (FE) for solving practical problems in mechanics. Elementary theory of FE is discussed. A commercial computer program is used for applications. Major emphasis is on behavior of FE, modeling, and evaluation of results for correctness. Prereq: EMA 214, 303, 304, or 306; EMA 202 or 221; knowledge of elementary matrix algebra or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E M A 425 Undergraduate Rheology Seminar Credits: 0 - 1
Rheology seminar course encouraged for all interested in professions related to polymers, suspensions or rheology; will not count toward credit requirement of the major. Prereq: Cons inst or Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E M A 469 Design Problems in Engineering Credits: 3
The design philosophy is presented. Students will be required to apply their knowledge of elementary mechanics, engineering and basic science to arrive at acceptable solutions to a variety of design problems. Prereq: EMA 221, 307; ECE 376; ME 363, 361; MS&E 350; or cons inst
Typically Offered: Fall

E M A 471 Intermediate Problem Solving for Engineers Credits: 3
Use of computational tools for the solution of problems encountered in engineering physics applications. Topics covered include orbital mechanics, structural vibrations, beam and plate deformations, heat transfer, neutron diffusion, and criticality. Emphasis will be on modeling, choice of appropriate algorithms, and model validation. Prereq: Math 319 & NEEP 271 or Comp Sci 310
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E M A 476 Introduction to Scientific Computing for Engineering Physics Credits: 3
Basic tools of professional scientific computation for UNIX environments are taught. Programming skills in a compiled language are developed through engineering examples. Applications reinforce engineering problem-solving skills first examined in introductory courses, while motivating progressively more advanced computational methods. Prereq: NEEP 271 or Comp Sci 310; Comp Sci 412 or equivalent; Math 319; or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E M A 489 Honors in Research Credits: 1 - 3
Undergraduate research and senior honors thesis in engineering mechanics and astronautics. Prereq: Honors candidacy in engineering mechanics
Typically Offered: Fall, Spring, Summer

E M A 506 Advanced Mechanics of Materials I Credits: 3
Analysis and design of load-carrying members, shear center, unsymmetrical bending, curved beams, beams on elastic foundations, energy methods, theories of failure, thick-walled cylinders, stress concentrations, design to prevent failure by excessive elastic deformation, plastic deformation and fracture. Prereq: EMA 214, 304, or 306/307
Typically Offered: Fall
E M A 508 Composite Materials Credits: 3
Physical properties and mechanical behavior of polymer, metal, ceramic, cementitious, cellulosic and biological composite systems; micro- and macro-mechanics; lamination and strength analyses; static and transient loading; fabrication; recycling; design; analytical-experimental correlation; applications. Prereq: ME 342 or ME 444 or ME/EMA 570 or EMA 506 or cons inst
Typically Offered: Spring

E M A 519 Fracture Mechanics Credits: 3
Introduction to the mechanics of fracture of linear and nonlinear materials. Crack stress and deformation fields; stress intensity factors; crack tip plastic zone; fracture toughness testing; energy release rate; J-integral. Criteria for crack growth initiation/stability; application to design. Prereq: EMA 214, 304, or 306/307
Typically Offered: Spring

E M A 521 Aerodynamics Credits: 3
Potential flow theory; stream functions; vortex filaments and sheets. Two- and three-dimensional wing theory. Doublet and panels methods. Propeller theory. Prereq: EMA 202; CEE 310 or ME 363; Math 234; or consent of instructor
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E M A 522 Aerodynamics Lab Credits: 3
Teams of two or three students perform case study of a wing using computer simulations and lab experiments. Experimental and computational results are compared against theoretical predictions developed in prerequisite class. Results are presented in three oral and three written reports. Prereq: EMA 521
Typically Offered: Spring

E M A 523 Flight Dynamics and Control Credits: 3
Typically Offered: Spring

E M A 540 Experimental Vibration and Dynamic System Analysis Credits: 3
Application of digital data acquisition to the investigation of mechanical components, structures and systems using time histories, transforms and response functions to characterize free, forced and transient inputs. Introduction to sensors, instrumentation and methods appropriate for dynamic system response. Prereq: ME 340 or ME 440 or EMA 545 or cons inst
Typically Offered: Spring

E M A 541 Heterogeneous and Multiphase Materials Credits: 3
Principles of the mechanics of solid multiphase systems. Role of heterogeneity and anisotropy in determining physical properties including elastic, dielectric and piezoelectric properties. Applications in lightweight structures, ultrastrong materials, materials for protection of the body, and materials for the replacement of human tissues. Materials with fibrous, lamellar, particular, and cellular structures. Heterogeneous materials of biological origin. Biomimetic and bio-inspired materials. Prereq: EMA 303 or ME 306 or MS&E 441 or equivalent
Typically Offered: Fall

E M A 542 Advanced Dynamics Credits: 3
Kinematics and kinetics of plane and three-dimensional motion, Coriolis acceleration, general methods of linear and angular momentum, central force motion, gyro dynamics, generalized coordinates. Lagrange's equations. Prereq: EMA 202 or 221; EMA 307; Math 223; or consent of instructor
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E M A 545 Mechanical Vibrations Credits: 3
General theory of free, forced, and transient vibrations; vibration transmission, isolation, and measurement; normal modes and generalized coordinates; method of matrix equation formulation and solution. The application of theory and methods to the analysis, measurement and design of dynamic systems. Prereq: EMA 202 or 221; EMA 307; Math 223; or consent of instructor
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E M A 547 Engineering Analysis I Credits: 3
Methods of higher mathematics; stress on problem solving rather than rigorous proofs; linear algebra, calculus of variations, Green's function. Prereq: A year of advanced calculus such as Math 321 & 322
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
E M A 548 Engineering Analysis II Credits: 3
Function of complex variable, series solution of different equations, partial differential equations. Prereq: A year of math beyond calculus
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E M A 550 Astrodynamics Credits: 3
Coordinate system transformations, central force motion, two body problem, three and n-body problem, theory of orbital perturbations, artificial satellites, elementary transfer orbits, and elementary rocket dynamics. Prereq: EMA 202 or 221; or Physics 311 or con reg; or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E M A 569 Senior Design Project Credits: 3
Students will select specific engineering design projects. These projects will be student team efforts supervised by individual faculty members. Prereq: EMA 469, & any two of EMA 542, 545, 506; or consent of instructor
Typically Offered: Spring

E M A 570 Experimental Mechanics Credits: 3
Experimental methods for design and analysis of mechanical components, structures and materials. Electrically and optically recorded stress, strain and deformation data; computer acquisition/reduction/presentation techniques; applications to static and transient events, sensors, transducer design, NDT, fracture and residual stresses. Prereq: ME 306 or EMA 214 or 303 or 304 or cons inst
Typically Offered: Fall

E M A 599 Independent Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E M A 601 Special Topics in Engineering Mechanics Credits: 1 - 3
Selected topics in such areas as structural mechanics, dynamics, experimental mechanics, vibrations, engineering materials, soil mechanics, engineering analysis, rheology, etc. Prereq: Cons inst
Typically Offered: Fall, Spring

E M A 605 Introduction to Finite Elements Credits: 3
A first course in finite elements, with theory and applications in stress analysis and in areas related to structural mechanics. Practice in the use and/or development of computer programs. Prereq: EMA 303, 304 or ME 306; Math 340; or cons inst
Typically Offered: Fall

E M A 610 Structural Finite Element Model Validation Credits: 3
An introduction to test-based validation of finite element models for the design and analysis of dynamic structures. Prereq: EMA 405, EMA 545 or ME 440
Typically Offered: Spring

E M A 611 Advanced Mechanical Testing of Materials Credits: 3
Theory and use of servo-controlled, electro-hydraulic equipment for research of mechanical properties of engineering materials. Measurement of stress, strain, hysteresis energy, and material properties during deformation and at fracture. Analysis of four significant components of total strain. Prereq: EMA 307 & either EMA 506 or con reg in EMA 506
Typically Offered: Spring

E M A 615 Micro- and Nanoscale Mechanics Credits: 3
An introduction to micro- and nanoscale science and engineering with a focus on the role of mechanics. A variety of micro- and nanoscale phenomena and applications covered, drawing connections to both established and new mechanics approaches. Prereq: EMA 306 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E M A 622 Mechanics of Continua Credits: 3
Tensor analysis; analysis of stress, strain and rate of strain; application of Newtonian mechanics to deformable media; mechanical constitutive equations; field equations of fluid mechanics and elasticity. Prereq: Math 340 & Math 321 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
EM A 630 Viscoelastic Solids Credits: 3
Linear theory of viscoelasticity; non-aging materials; Boltzmann superposition principle; time-temperature
superposition boundary value problems. Applications: vibration damping, relaxation of stress, creep, droop, and
sag in structural members, sound absorption, creep buckling, settlement of foundations, tire mechanics, and
shock attenuation. Prereq: EMA 506 or equiv; or EMA 303 & cons inst
Typically Offered: Fall

EM A 642 Satellite Dynamics Credits: 3
Review of Euler's equations, torque-free motion, stability of rotation, energy dissipation effects, gyroscopic
instruments, gyrodynamics of the Earth, gravity gradient stabilized satellites, spin stabilized satellites, dual spin
satellites, tethered satellites, mass movement techniques, space vehicle motion and rocket dynamics. Prereq:
EMA 542
Typically Offered: Spring

EM A 690 Master's Research Credits: 1 - 9
Prereq: Grad st
Typically Offered: Occasionally

EM A 700 Theory of Elasticity Credits: 3
Equations of elasticity in curvilinear and rectangular coordinates; two dimensional problems; problems of
prismatic bars; variational methods and energy principles; complex variable and numerical methods; thermal
stress problems. Prereq: EMA 506 & Math 321 or cons inst
Typically Offered: Occasionally

EM A 702 Graduate Cooperative Education Program Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with
a background on which to develop and enhance a professional career. The work experience is tailored for MS
students from within the U.S. as well as eligible international students. Prereq: Graduate or professional
standing
Typically Offered: Occasionally

EM A 703 Linear Viscoelasticity and Plasticity Credits: 3
Linear theory of solid and fluid viscoelasticity. Solution of problems by transform techniques. Wave propagation.
Thermoviscoelasticity. Yield criteria. Plastic stress-strain relations. Solution of problems for the perfectly plastic
material and the elastoplastic material. Prereq: EMA 622 or cons inst
Typically Offered: Occasionally

EM A 705 Advanced Topics in Finite Elements Credits: 3
Finite element methods for problems with linear and nonlinear media. Stress analysis, heat transfer, and fluid
Nonlinear iteration methods. Instructor may also select additional material. Prereq: EMA 605
Typically Offered: Occasionally

EM A 706 Plates, Shells and Pressure Vessels Credits: 3
Stress and deflection analysis of structural plates and membranes under mechanical and thermal loads;
variational and numerical methods; instability and vibrations; membrane shell theory; cylindrical shells; pressure
vessel and piping design applications; ASME Pressure Vessel Code. Prereq: ME 444 or EMA 506 or cons inst
Typically Offered: Occasionally

EM A 708 Advanced Composite Materials Credits: 3
Contemporary topics such as new materials; smart materials/structures/systems; fatigue; fracture; experimental
techniques; nondestructive evaluation; transient, micro, three-dimensional, nonlinear, inelastic and environmental
effects; manufacturing methods: repair and applications. Prereq: ME/EMA 508 or cons inst
Typically Offered: Occasionally

EM A 719 Advanced Fracture Mechanics Credits: 3
Rigorous, systematic development of principal concepts and theories of modern fracture mechanics. Topics
include stress and deformation fields for stationary and growing cracks in linear elastic, nonlinear elastic, elastic-
plastic and viscoelastic materials; J-integral theory and applications; criteria for crack growth, stability and
fracture. Prereq: EMA 519 & 622, or cons inst
Typically Offered: Occasionally
**E MA 722 Introduction to Polymer Rheology** Credits: 3
Formulation of constitutive equations using embedded base vectors. Viscosity, normal stress differences, stress relaxation, elastic recoil. Polymer rheology; homogeneous strain history. Prereq: Math 320 or cons inst
Typically Offered: Occasionally

**E MA 742 Theory and Applications in Advanced Dynamics** Credits: 3
Dynamical systems theory, advanced rigid body attitude dynamics, Lagrange's equations of motion, conservation laws, quasi-coordinates, Routh's method for ignorable coordinates, Hamilton's equations of motion, dynamic stability, Liapunov stability methods, angular momentum methods for systems of rigid bodies, modeling of rotating elastic systems, Kane's equations of motion, deterministic chaos. Prereq: EMA 542 or Physics 311 or cons inst
Typically Offered: Occasionally

**E MA 745 Advanced Methods in Structural Dynamics** Credits: 3
Emphasis is placed on techniques used to analyze aerospace structures. Variational principles, Hamilton's extended principle, Lagrange's equations, mathematical models for continuous systems, natural modes of vibrations, dynamic response using mode superposition, mode acceleration, residual flexibility, vibration analysis using finite element methods, advanced substructure representations, component mode synthesis, systems with rigid body modes for aeronautical and astronautical systems. Prereq: EMA 545, EMA 405 or equiv or cons inst
Typically Offered: Occasionally

**E MA 747 Nonlinear and Random Mechanical Vibrations** Credits: 3
Exact solutions and sectorial linearization; free and forced vibration of mechanical systems with nonlinear restoring force; self-excited mechanical vibrations and relaxation vibrations; subharmonic responses; nonlinear vibration of mechanical systems with more than one degree of freedom; nonlinear vibration of bounded continuous media; random excitation and random response, random vibrations of mechanical systems and structures; random vibrations of nonlinear mechanical systems; failure of materials under random vibrations. Prereq: EMA 745
Typically Offered: Occasionally

**E MA 759 High Performance Computing for Applications in Engineering** Credits: 3
An overview of hardware and software solutions that enable the use of advanced computing in tackling computationally intensive Engineering problems. Hands-on learning promoted through programming assignments that leverage emerging hardware architectures and use parallel computing programming languages. Prereq: COMP SCI 302 or COMP SCI 368
Typically Offered: Fall

**E MA 790 Master's Research and Thesis** Credits: 1 - 9
Prereq: Grad st. For Master's candidates only
Typically Offered: Occasionally

**E MA 825 Molecular Network Theories for Polymeric Materials** Credits: 3
Typically Offered: Occasionally

**E MA 890 Pre-Dissertator Research** Credits: 1 - 9
Prereq: Grad st. For pre-dissertator stdts only
Typically Offered: Occasionally

**E MA 925 Rheology Research Seminar** Credits: 0 - 1
Exploration of the most recent research literature on viscoelasticity, constitutive equations, non-Newtonian flow systems, fluid metering devices, kinetic theory of macromolecules, and rheoptical phenomena. Periodic reports on recent advances made by research workers in the various rheology groups on the Madison campus. Prereq: Graduate or professional standing
Typically Offered: Occasionally

**E MA 990 Research and Thesis** Credits: 1 - 12
Prereq: Dissertator status
Typically Offered: Occasionally

**ENGR PROFESSIONAL DEVELOPMENT**
E PD 151 Technical Information Resources  Credits: 1
Development of information retrieval skills and effective search strategies, focusing on technical information resources appropriate for engineers and scientists. Selection and use of electronic bibliographic databases, indexes and abstracts, patents and government information, library catalogs, and computer networks will be integral to individual and team projects. Prereq: Open to Fr
Typically Offered: Fall, Spring

E PD 155 Basic Communication  Credits: 2
Emphasis on writing and critical reading. Planning, preparing, and revising informative and persuasive communication; adapting writing for intended audiences; grammar, usage and style; critical reading of prose models in the sciences and humanities; using information resources; videotaped oral presentations; collaborative writing using computers. Prereq: Open to Fr. Stds may receive degree cr for only one Com A crse taken in residence
General Education: COM A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E PD 199 Freshman Independent Study  Credits: 1 - 3
Prereq: Open to Freshmen
Typically Offered: Fall, Spring

E PD 265 Teams and the Engineering Profession  Credits: 1
The communication strategies necessary for effective teamwork in engineering and science professions is the focus of this project-based course. Project options include international, ethical, and engineering business plan issues. Key communication elements are team structures, interpersonal skills, team theories, application, and evaluation. Prereq: EPD 155 or other crse that satisfies Part A Communication Requirement or EPD 160 or cons inst
Typically Offered: Spring

E PD 275 Technical Presentations  Credits: 2
This course focuses on the principles and theory of effective oral technical presentations and provides a framework for applying the principles in professional settings common to the engineering profession. The course consists of five parts: 1) preparation, delivery, and evaluation of oral presentation on technical subjects, 2) analysis of professional "real-world" technical presentations, 3) survey of presentation technology, 4) self-analysis including listening and non-verbal skills, and 5) practice of group discussion and interview skills. Prereq: So st
Typically Offered: Fall, Spring

E PD 299 Sophomore Independent Study  Credits: 1 - 3
Typically Offered: Fall, Spring

E PD 305 Basic Chinese for Professionals I  Credits: 3
Professionals will learn the business vocabulary and the patterns of communication they will need in order to conduct business in a Chinese-language environment. Part one of a two-course sequence. Prereq: SR or Grad st
Typically Offered: Fall

E PD 310 Basic Technical Japanese I  Credits: 3
Introduces the three types of Japanese writing and most grammar necessary for reading technical writing in the sciences. Prereq: Sr or Grad st
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E PD 330 Basic Technical Japanese II  Credits: 3
Completes the grammar necessary for reading technical writing in the sciences. Concludes with individual projects in specialized fields. Prereq: EPD/E Asian 330
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E PD 332 Basic Technical Japanese II  Credits: 3
Completes the grammar necessary for reading technical writing in the sciences. Concludes with individual projects in specialized fields. Prereq: EPD/E Asian 330
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E PD 355 Intermediate Business Chinese for Professionals I  Credits: 3
Professionals will learn the business vocabulary and the patterns of communication they will need in order to conduct business in a Chinese-language environment. Part one of a two-course sequence. Prereq: EPD 306
Typically Offered: Fall

E PD 356 Intermediate Business Chinese for Professionals II  Credits: 3
Professionals will learn the business vocabulary and the patterns of communication they will need in order to conduct business in a Chinese-language environment. Part two of a two-course sequence. Prereq: EPD 355
Typically Offered: Spring
EPD 374 Intermediate Technical Japanese I  Credits: 3
Fundamentals of Japanese grammar and the most frequent 300 Kanji in the physical sciences; reading, comprehending and translating Japanese scientific texts. Prereq: E Asian 203 or cons inst. Does not satisfy L&S language or major requirement.
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

EPD 375 Intermediate Technical Japanese II  Credits: 3
Continuation of 374; development of a Kanji frequency list and translation of a technical article. Prereq: EPD/E Asian 374 or cons inst. Does not satisfy L&S language or major requirement.
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

EPD 377 Business Japanese Communication  Credits: 3
Improvement of oral and written communication skills that are specific to business contexts. Review of essential grammar and honorific expressions for proper styles of communication. Development of the understanding of cultural and geographical factors that influence business practices in Japan. Prereq: E Asian 203-204 or equiv prev lang training (consult instr).
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

EPD 378 Network Skills for Remote Learners  Credits: 1
This course is designed to provide students with the knowledge, skills, and attitudes they need to be efficient and effective independent learners in a networked environment. The three primary modules for the course include: learning management, information management, and computer skills. Prereq: Admission to Master of Engineering in Engineering Management or Master of Engineering in Engine Systems distance degree program or department consent.
Typically Offered: Summer

EPD 395 Elements of Computer-Assisted Publishing  Credits: 3
This course focuses on concepts of the writing-to-publishing process and computer-assisted publishing. It integrates principles of technical writing and graphic design with the use of microcomputers. Laboratory work includes the design of a technical document. Prereq: EPD 397 or cons inst.
Typically Offered: Fall, Spring

EPD 397 Technical Communication  Credits: 3
Communication for engineering, science, and technology; theory and practice in planning, preparing, and critiquing reports, proposals, instructions, and business correspondence; research strategies, collaborative work; oral presentations. Prereq: Junior standing.
General Education: COM B  Typically Offered: Fall, Spring, Summer

EPD 398 Technical Communications Internship  Credits: 1
Two component course: 1) professional writing experience entailing approximately 80 hours internship with a local corporation, industry, government agency, or educational unit; and 2) one 50 minute class every other week to structure the internship and provide discussion of related issues. Prereq: EPD 397; 6 cr in other communicatn crses or cons inst.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

EPD 399 Junior Independent Study  Credits: 1 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

EPD 416 Engineering Applications of Statistics  Credits: 3
Course provides knowledge and skills to apply statistics to many types of engineering problems. Focuses on developing statistically-based experimental techniques and tests for measures of validity, application of computer-based statistical tools, and approaches to distillation of data. Prereq: Admission to Master of Engineering in Engineering Management distance degree program or department consent.
Typically Offered: Fall

EPD 470 Engineering Problem Solving with Computers  Credits: 3
Develops computer-assisted skills necessary for solving complex engineering problems. Uses a series of case studies that develop techniques for solving linear and nonlinear algebraic systems, optimization problems, data approximation problems, and systems of ordinary differential equations. Prereq: Admission to Master of Engineering in Engineering Management distance degree program or department consent.
Typically Offered: Spring
EPD 497 Technical Editing Credits: 1
Principles and practices of editing technical and scientific documents. Overview of the editing process; defining
the editor's rules and responsibilities, revising at structural and sentence levels, and addressing stylistic
conventions of technical fields. Application to technical and scientific documents such as reports, proposals, and
user manuals. Prereq: EPD 397 or cons inst
Typically Offered: Fall, Spring

EPD 499 Senior Independent Study Credits: 1 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

EPD 518 Quality Engineering and Quality Management Credits: 3
The overall purpose of this course is to enhance the learners' basic business and decision-making skills related to
quality systems and process improvement. Prereq: Admission to Master of Engineering in Engineering
Management distance degree program or department consent
Typically Offered: Spring

EPD 597 Technical and Professional Communication Credits: 3
This course emphasizes essential concepts and strategies of effective written and oral communication. Topics
include writing, documenting, and publishing individual and collaborative research and technical projects;
managing communication aspects of technical projects; oral presentations, conference skills, theses and
dissertations. Prereq: Cons inst
Typically Offered: Fall, Spring

EPD 601 Japanese for Business and Industry Credits: 3 - 4
Business language and commercial practices in contemporary Japanese society. Prereq: EPD/E Asian 375 or E
Asian 304 or consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

EPD 602 Japanese for Politics and Government Credits: 3 - 4
Language and patterns of expression used in political discourse and policymaking in Japan. Prereq: EPD/E
Asian 375 or E Asian 304 or consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

EPD 603 Advanced Technical Japanese Seminar Credits: 3 - 4
Students will read an intermediate/advanced Japanese university textbook in the sciences and view videotaped
lectures by Japanese university faculty members in parallel with the content of the textbook. Prereq: EPD/E
Asian 430 or consent of instructor
Typically Offered: Spring

EPD 604 Research in Japanese Technical Literature Credits: 2 - 6
Graduate students in the sciences and engineering pursue individual projects to explore recent Japanese
literature in their research fields. Prereq: EPD 530 or EPD 603 or consent of instructor
Typically Offered: Fall, Spring

EPD 611 Engineering Economics and Management Credits: 3
This course addresses principles and practices of interpreting financial information and performing engineering-
related economic analyses. This course focuses on the practical use of economic information for decision-making.
The four course modules are: 1) Basic Accounting Concepts; 2) Management Concepts; 3)Pricing and Product
Decisions; and 4) Systems. Prereq: Admission to Master of Engineering in Engineering Management distance
degree program or department consent
Typically Offered: Fall

EPD 612 Technical Project Management Credits: 3
Learn key principles and tools of project management applicable to a broad range of engineering projects. The
course covers techniques for project planning, scheduling, resource allocation, and project tracking, as well as the
interface between projects and the organizations within which they are executed. Prereq: Admission to Master
of Engineering in Engineering Management distance degree program or department consent
Typically Offered: Fall
E P D 613 International Engineering Strategies and Operations Credits: 3
Provides a comparative examination and analysis of global trends and regional variations for engineering
concepts, standards and practices. Using organizational case studies, the course will describe and analyze multi-
national engineering operations and summarize best practices and caveats. Prereq: Admission to Master of
Engineering in Engineering Management distance degree program or department consent
Typically Offered: Fall

E P D 615 Independent Reading and Research in Applied Engineering Credits: 2
Conduct independent reading and research in an applied engineering topic of student’s choice under the
guidance of a UW faculty member or project mentor. Learn and use a variety of in-depth research techniques with
assistance from Wendt Engineering Library. Employ a thorough understanding of genre conventions to craft an in-
depth proposal, literature review, and technical presentation for distinct practitioner audiences. Present results of
research at subsequent Master of Engineering in Engineering Management residency public session in late
August. Prereq: Declared in Master of Engineering in Professional Practice program
Typically Offered: Summer

E P D 617 Communicating Technical Information Credits: 3
Develops skills necessary for engineering professionals to communicate technical and managerial information.
Covers approaches for communicating to diverse audiences and for action-oriented purposes. Emphasizes
communication problem solving and communication efficiency. Includes individual and collaborative projects
using oral, written, and electronic media. Prereq: Admission to Master of Engineering in Engineering
Management distance degree program or department consent
Typically Offered: Spring

E P D 618 Applied Leadership and Management of Engineering Organizations Credits: 3
Addresses strategies, models, and practices for leading and managing engineering organizations in a context
directly relevant to practicing engineers. Students will engage in self-reflection about styles, beliefs, and past
experiences with leadership and management. Course project of direct relevance to student's organization will
integrate theory, models, case studies, and real-time experiences from student's workplace. Students will gain
broad exposure to diverse approaches to leadership and management, and a deeper understanding of how to put
what is being learned into effective action. Prereq: Admission to Master of Engineering in Engineering
Management distance degree program or de
Typically Offered: Spring

E P D 622 Engine Design I Credits: 2
The overall purpose of this course is to provide the learners with an understanding of engine applications,
customer need assessment, and engineering product planning. Prereq: Admission to Master of Engineering in
Engine System degree prgm & B.S. in engr or equiv. EPD 621
Typically Offered: Occasionally

E P D 623 Engine Design II Credits: 4
The overall purpose of this course is to provide the learners with an advanced understanding of internal
combustion engine design. Prereq: Admission to Master of Engineering in Engine Systems degree prgm & B.S.
in engr or equiv. EPD 621 & 622
Typically Offered: Occasionally

E P D 624 Engine Performance and Combustion Credits: 4
Provides learners with a physically based understanding of combustion, efficiency, and exhaust emission
formation and control in internal combustion engines. Prereq: Admission to Master of Engineering in Engine
System degree prgm & B.S. in engr or equiv
Typically Offered: Fall

E P D 625 Engine Fluid Dynamics Credits: 3
The overall purpose of this course is to provide the learners with a physically based understanding of fluid
dynamics and air handling system design in internal combustion engines. Prereq: Admission to Master of
Engineering in Engine Systems degree prgm & B.S. in engr or equiv
Typically Offered: Occasionally

E P D 626 Engine Project Management Credits: 3
Learn and practice how to plan, manage, and control a variety of projects, from simple design exercises to the
complete design, analysis, development and release to production of a new engine. Prereq: Admission to
Master of Engineering in Engine Systems degree prgm & B.S. in engr or equiv
Typically Offered: Occasionally
E P D 627 Perspectives on Engine Modeling Credits: 2
Learn about problem definition and planning, tool selection, model construction, calibration, application and data presentation in order to integrate the most appropriate modeling tools into an engine design and development project. Prereq: Admission to Master of Engineering in Engine Systems degree prgm & B.S. in engr or equiv
Typically Offered: Occasionally

E P D 628 Analysis of Trends in Engines Credits: 2
Take a scientifically-based look at trends in energy availability, emission control and refuelling, and technological advances to make an assessment of the future of engines and powertrain systems for vehicles throughout the world. Prereq: Admission to Master of Engineering in Engine Systems Degree Program and B.S. in Engineering or equivalent
Typically Offered: Summer

E P D 629 Engine Systems and Controls Credits: 4
Explore fundamental control concepts for development and analysis, modeling requirements and considerations related to control and diagnostics, and the application of these tools to engine systems. Prereq: Admission to Master of Engineering in Engine Systems Degree Program and B.S. in Engineering or equivalent
Typically Offered: Fall

E P D 641 Essential Skills for Engineering Productivity Credits: 2
Essential Skills for Engineering Productivity (ESEP) provides the knowledge, skills and attitudes needed to be efficient and effective independent learners in a networked environment. This course focuses on key concepts and critical skills for remote learning, teamwork, working with colleagues at a distance, and engineering productivity. Additionally, a large component of this course teaches effective ways of getting engineering information across to large or small audiences in live or web based presentations. Prereq: Admission to an online Master of Engineering Program
Typically Offered: Fall

E P D 642 Thermal Systems Engineering Credits: 2
Use the 1st and 2nd laws of thermodynamics in the analysis of engines, and utilize ideal gas mixture, thermodynamics and combustion principles to determine adiabatic flame temperature and chemical equilibrium. Prereq: Admission to Master of Engineering in Engine Systems Degree Program and B.S. in Engineering or equiv
Typically Offered: Fall

E P D 643 Analysis of Trends in Engines - Legislative Drivers and Alternative Fuels Credits: 1
With a scientifically-based approach, this course will consider trends in energy availability, emission control and regulation, and technological advances for assessing the future of engines and powertrain systems in vehicle applications throughout the world. Prereq: Admission to Master of Engineering in Engine Systems Degree Program and B.S. in Engineering or equivalent
Typically Offered: Fall

E P D 644 Analysis of Trends in Engines - Powertrain Technologies and Manufacturing Credits: 1
Take a scientifically-based look at trends in technological advances to make an assessment of the future of engines and powertrain systems for vehicles throughout the world as well as manufacturing constraints on future development of engines. Prereq: Admission to Master of Engineering in Engine Systems Degree Program and B.S. in Engineering or equivalent.
Typically Offered: Occasionally

E P D 654 Teaching in Science and Engineering Credits: 2 - 3
Introduction to teaching and learning in science and engineering at the college level. Includes exploration of the learning process, teaching methodology, assessment strategies, course design, teaching philosophies, and careers in education, science, and engineering. Prereq: Grad stdt in sci or engr or cons inst
Typically Offered: Spring

E P D 660 Core Competencies of Sustainability Credits: 3
Introduces real-world pragmatic skills and applications in sustainability competencies. Content reaches across engineering expertise, from chemical engineering to buildings to product design and energy. Modules cover ecological footprinting, lifecycle assessment, resource use and integrated engineering practice. Prereq: Junior standing
Typically Offered: Fall
E P D 661 Industrial Ecology: Sustainability Tools in Context Credits: 3
Introduces sustainability frameworks and addresses industrial ecology by learning how and when to use a range of tools that offer systems thinking perspectives (e.g. Mass Flow analysis, Footprinting, SLCA, SWOT, EIOLCA, LCA, MIPS). Assist in constructing an evaluation matrix to evaluate tool application contexts, and discuss the relationship between optimizing systems through the use of tools and larger sustainability issues/goals. Prereq: Acceptance in the ME-Sustainable Systems Engineering program
Typically Offered: Spring

E P D 663 Engineering Sustainability and Society Seminar and Conference Credits: 1
Each April, the University of Wisconsin Nelson Institute for Environmentalstudies hosts an Earth Day Conference in Madison, Wisconsin. The conference provides a forum for a diverse community of academia, industry and the community to discuss environmental, social, and economic aspects of sustainability. This online course prepares students in the Master of Engineering Sustainable Systems Engineering program to attend this conference through research projects and classroom discussion prior to Earth Day on the conference theme and its relationship with engineering practice. Students then travel to Madison, Wisconsin for the conference and discussion with faculty before and after the conference
Typically Offered: Spring

E P D 669 Sustainable Systems Engineering Capstone Credits: 3
The Sustainable Systems Engineering (SSE) Capstone gives teams of students the opportunity to demonstrate their ability to think globally, sustainably, and creatively. Throughout this course, students will gain real-world experience by applying theory, tools, and research to conceptualize, analyze, and design a solution to a real-world problem within a social and environmental context. Projects should showcase the knowledge and analytical skills acquired during the SSE program, and integrate tools, science and communication to address a community or industry need. Students will also work with an industry mentor and customer throughout their project. Prereq: Completion of at least 21 credit
Typically Offered: Fall, Spring

E P D 690 Special Topics in Engineering Professional Development Credits: 1 - 3
Typically Offered: Fall, Spring

E P D 699 Independent Study Credits: 1 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E P D 700 Connected Learning Essentials Credits: 1
The course is designed to provide students with the knowledge, skills and abilities needed to be efficient and effective learners in a networked environment. The course recognizes that the role of “learner” is only one of many roles that you must play in your busy life. It strives to help you become easily adaptable to digital tools and technologies. The course cannot address all network and computing situations required by a student or professional, but will focus on key concepts, orientation, and critical skills that have been identified as key professional competencies of a digitally literate professional. You will learn key concepts to be an effective online learner and connected profess
Typically Offered: Occasionally

E P D 701 Writing for Professionals Credits: 1
Professional Writing is an online course in the Professional Literacy Course suite. The goal of this 1-credit, 8-week course is to prepare students to produce effective written communication that is suitable for inter-professional and inter-disciplinary audiences in a variety of workplaces. Assignments apply strategies and tools introduced in live web conferences and readings to common informal and formal workplace writing, including email, memos, proposals and executive summaries. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 702 Professional Presentations Credits: 1
In this course, you will sharpen your ability to create, edit, review, and present information in an efficient, clear, and effective way for your audiences. The course will develop your presentation skills through a series of presentations related to your professional interests and work. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 703 Managing Digital Information Credits: 1
This course helps professionals to effectively and ethically protect and organize the information that they collect, create, and manage. It also presents collaboration tools and techniques for information creation and management. Prereq: Graduate or professional standing
Typically Offered: Occasionally
E P D 704 Organizational Communication and Problem Solving Credits: 1
One of the most important processes in complex organizations is judgment, problem-solving, and decision-making. This course aims to help people improve their problem solving within complex organizations with a special emphasis on case studies and improving communication. The material will be from cross-discipline sources (organizational behavior, organizational communication, social psychology). The first part of the course will focus on different theories of how people solve problems and how to communicate problems effectively. The second part of the course will focus on using empirical science to learn how to effectively use groups and teams to communicate, innovate, and make decisions. Th
Typically Offered: Occasionally

E P D 706 Change Management Credits: 1
Provides emerging and practicing professionals foundational knowledge sufficient to develop a change management strategy and implement it using proven processes and tools. Through this course, students will be better prepared to deliver effective organizational performance. The course applies contemporary concepts and methods in change management through student selected projects. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 708 Creating Breakthrough Innovations Credits: 1
Innovation needs processes and methods. Innovation needs tools and frameworks. But, there is no ONE right process, method, tool, or framework. Those are very context sensitive to things such as company, industry, and culture. This course is not about those things. We need to be able to be problem definers and insight generators that can apply what we learn in the real world, creating solutions and processes not seen before. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 710 Foundations of Engineering Leadership Credits: 2
Build the foundations for developing, refining and strengthening your effectiveness as a leader of engineering teams, projects, and organizations. Enhance your understanding of how to match your leadership style to a team's focus, organization and culture. Grow your understanding of your strengths and weaknesses as a leader using proven assessment tools. Develop your plan for growing your leadership competency through the rest of the Master of Engineering Management program and beyond. Prereq: Declared in Master of Engineering Management program
Typically Offered: Summer

E P D 712 Ethics for Professionals Credits: 1
Explores how our actions affect others and influence the choices we make within the workplace. This course will enhance ethical competencies by giving students opportunities to discuss challenges to behavior and decision-making in different professional contexts. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 713 Key Legal Concepts for Professionals Credits: 1
An introduction to basic legal concepts, sources, and reasoning. Laws affect all aspects of our lives. For people without legal training, though, the legal language, procedure, and argumentation is a bit bewildering. This course aims to demystify law by providing an introduction to basic legal concepts, an overview of several key substantive areas of law, and an explanation of ways in which law functions in professional practices. The course will be grounded in U.S. and closely related common law jurisdictions, but it will consider other legal systems and international law as well. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 720 Engine Noise and Vibration Credits: 2
Introduces the engineer to fundamental NVH (Noise, Vibration, and Harshness) concepts with an emphasis on how NVH can be integrated throughout the engine development process from initial concept inception through to validation testing for production. Prereq: Declared in Master of Engineering, Engine Systems program
Typically Offered: Summer

E P D 730 Sustainable Facilities Credits: 3
Explore the environmental impacts of commercial and residential buildings, including energy, water, materials, transportation, waste, human health, and land use. All phases of a building's life cycle will be considered, along with relevant case studies, benchmarking tools, public policies and emerging concepts. Prereq: Declared in Master of Engineering in Sustainable Systems Engineering
Typically Offered: Spring
E P D 781 Financial and Business Acumen Credits: 1
This course is designed with a keen awareness for the needs of the non-financial student or professional. For this class, no previous financial training is required. The intent is to equip you with the essential concepts used to develop financial literacy. Content will cover basic financial terms and reports, analytical tools to help interpret financial data and using financial data in budgets and forecasts. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 782 Marketing for Non-Marketing Professionals Credits: 1
An overview of marketing's role within an organization, the key elements of a marketing plan, and how the plan is implemented. Students will learn about buyer demographic, psychographic and purchasing decision behavior. A thorough understanding of the customer enables students to develop a coordinated marketing mix (product, price, promotion and place) that will satisfy the customer better than the competition and at the required margin. Students will leave the course understanding the degree to which all company functions must be coordinated and focused on the customer. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 783 Leading Teams Credits: 1
Students will gain the knowledge and skills to continuously enhance their own team performance and productivity as well as the teams they are involved with. They will also be in a much better position to lead teams effectively. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 784 Project Management Essentials Credits: 1
This project management course teaches techniques that will help you plan, execute, and deliver projects with desired scope on time and on budget. Learn to document clear project objectives and goals, accurately estimate project time and costs, schedule and allocate time-critical resources, and establish feedback systems for optimal project control. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

E P D 785 Effective Negotiation Strategies Credits: 1
This course aims at improving students' negotiating skills, doing so by providing a theoretical underpinning that will help them to understand the sources of effective and ineffective approaches to negotiations. This course will not apply toward fulfilling the MBA degree requirements. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEOLOGICAL ENGINEERING

G L E 1 Cooperative Education Program Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career in industry. Prereq: So st
Typically Offered: Fall, Spring, Summer

G L E 171 Introduction to Geological Engineering Credits: 1
Comprehensive introduction to engineering applications of earth sciences. Exploitation and management of geologic resources; mitigation of geologic hazards such as landslides and earthquakes; abatement of environmental problems such as land and water pollution; design of surface and underground excavations; principal methods of geological engineering. Prereq: Open to Fr
Typically Offered: Spring

G L E 291 Problem Solving Using Computer Tools Credits: 3
Introduction to engineering computations with emphasis on computer tools and computer based measurement, data collection, and processing. Tools will include computer aided drafting, spreadsheets, other engineering computation tools, and hardware and software for laboratory and spatial measurements. Prereq: EMA 202 or 304
Typically Offered: Fall, Spring
G L E 330 Soil Mechanics Credits: 4
Basic principles of soil mechanics and fundamentals of application in engineering practice; soil composition and
texture; classification; permeability and seepage; consolidation; settlement; shear strength; lateral earth
pressures; fundamentals of retaining structures, shallow and deep foundations, slope stability; sub-surface
exploration; lab.  Prereq:  EMA 303 or 304 or con reg
Typically Offered: Fall, Spring

G L E 350 Introduction to Geophysics: The Dynamic Earth Credits: 3
Methods of geophysics applied to earth structure and plate tectonics. Principles of seismology, gravity, geodesy,
magnetism and heat flow.  Prereq:  Math 221
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

G L E 360 Principles of Mineralogy Credits: 3
Minerals, their physical and chemical properties, crystallography, and geologic significance.  Prereq:  1 sem
college chem or concurrent registration
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

G L E 370 Elementary Petrology Credits: 3
Igneous, sedimentary and metamorphic rocks, studied in hand sample and thin section.  Prereq:  Geosci 360
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

G L E 371 Introduction to Environmental Remote Sensing Credits: 3
Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to
study the environment. Includes physical processes of electromagnetic radiation, data types and sensing
capabilities, methods for interpretation, analysis and mapping, and applications.  Prereq:  Math 114 &
Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

G L E 372 Intermediate Environmental Remote Sensing Credits: 3
Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to
remote sensing of the environment. Includes transforms, image correction, classification algorithms and change
detection, with emphasis on applications for land use planning and natural resource management.  Prereq:  Envir
St 301 or consent of instructor, sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

G L E 401 Special Topics in Geological Engineering Credits: 1 - 3
Course will focus on a variety of topics in the field of geological engineering.  Prereq:  Jr st
Typically Offered: Occasionally

G L E 431 Sedimentary & Stratigraphy Lab Credits: 1
Field- and specimen-based laboratory course in Sedimentology & Stratigraphy; emphasizes qualitative and
quantitative description and interpretation of sediments and sedimentary deposits.  Prereq:  Geosci 204, Geosci
360, Geosci 370
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

G L E 444 Practical Applications of GPS Surveying Credits: 2
Global positioning system surveying for field applications. Signals. Coordinate systems. Datums. Cartographic
technologies.  Prereq:  Math 210, 211, 221 or equiv or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

G L E 455 Structural Geology Credits: 4
Principles of rock deformation, structures in layered rocks, structural analysis, intrusive structures. Lab: three-
dimensional problems involving structural concepts; field trip.  Prereq:  Geosci 202, 204, one term of physics.
Geosci 360 and 370 recommended or concurrent registration
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

G L E 474 Rock Mechanics Credits: 3
Classification of rock masses, stress and strain in rock, elastic and time-dependent behavior of rock, state of
stress in rock masses, failure mechanisms, lab testing, geological and engineering applications.  Prereq:  EMA
201 or 214, 304, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
GLE 475 Rock Mechanics Applications to Environmental Problems Credits: 3
Classification of rock for specific engineering purposes, in situ testing, applications to surface mining and slope stability, applications to underground mining and excavations, applications to waste disposal and underground storage, applications to novel methods of in situ mining, applications to earthquakes. Prereq: MS&E 474 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GLE 476 Field Methods in Geological Engineering Credits: 3
Methods of site investigations for the rational design of structures in rocks and soil. Field reconnaissance, exploratory drilling, in situ testing, during and post-excavation monitoring. Prereq: CEE 330 & Geol Engr 474, or consent of instructor
Typically Offered: Fall

GLE 478 Introduction to Geological Engineering Design Credits: 1
Review of geological engineering design projects. Discussion of design processes, team approaches, and ethics in geological engineering practice. Preparation of a project proposal, data gathering and planning. Prereq: GLE 475 or senior standing in GLE, or cons inst
Typically Offered: Fall

GLE 479 Geological Engineering Design Credits: 3
A practical problem in an area of geological engineering (such as development of a geologic resource or design of a structure in soil and/or rock) is selected and then the principles and processes of design and analysis are applied to the solution of the problem. Prereq: Sr st & cons inst
Typically Offered: Spring

GLE 489 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Not available for graduate credit. Prereq: Admission to the GLE honors in research program
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GLE 530 Seepage and Slopes Credits: 3
Practical aspects of seepage effects and ground water flow. Stability of natural and man-made slopes under various loading conditions. Design and construction of earth dams and embankments. Flow net and its use; wells; filters; total and effective stress methods of slope analysis; selection of pertinent soil parameters. Prereq: Civ Engr 330
Typically Offered: Fall, Spring

GLE 531 Retaining Structures Credits: 3
Rigid and flexible earth retaining structures. Analysis and design of retaining walls, anchored bulkheads, braced cuts, tie back cuts, mechanically stabilized earth, and slurry trench walls. Lateral earth pressure due to soil, water, surcharge loads, etc., local and overall stability and the design of anchorage and bracing systems. Prereq: Civ Engr 330; Comp Sci 310 or cons inst
Typically Offered: Fall, Spring

GLE 532 Foundations Credits: 3
Shallow and deep foundations. Analysis and design of footings, mats, piers and piles, and related fill and excavation operations. Consolidation settlement, time rate of settlement, stress distribution, elastic (immediate) settlement, load bearing capacity; methods to reduce settlements and increase shear strength; the selection of a foundation system. Prereq: Civ Engr 330 & Comp Sci 310 or cons inst
Typically Offered: Fall, Spring

GLE 594 Introduction to Applied Geophysics Credits: 3
Survey of applied geophysics, including seismic refraction, seismic reflection, electrical resistivity, gravity, and magnetics methods. The course will cover the basic physics of each method and modeling techniques and field procedures. Prereq: 1 yr of college calc, 1 yr of college physics
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GLE 595 Field Methods in Applied and Engineering Geophysics Credits: 1
The application of geophysical field methods for delineating near-surface features and/or structures as applied to engineering, environmental and exploration problems. Prereq: 1 yr coll calc, 1 yr coll physics or EMA 201, 202 & Physics 202, prev or con reg in GLE/Geoscience 594
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
GLE 597 Borehole Geophysics Credits: 3
Examines the use of borehole geophysical techniques to characterize geological materials, structures, and formation fluids in the region surrounding a well bore. Applications include formation evaluation for oil exploration, hydrologic, environmental, and mineral deposit characterization, and geoengineering analysis. Prereq: 1 yr coll calc, 1 yr coll physics or EMA 201, 202 & Physics 202, GLE/Geology 594
Typically Offered: Spring

GLE 627 Hydrogeology Credits: 3 - 4
Mathematical treatment of the physical principles governing the flow of groundwater; emphasis on well hydraulics and flow system analysis; problem sets and class projects. Prereq: Intro course in geol, Jr st & Math 221 or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GLE 629 Contaminant Hydrogeology Credits: 3
Physical and chemical processes governing the transport of solutes in groundwater; application of hydrogeologic and geochemical theory and practice to the protection of aquifers from contamination; problem sets and group projects. Prereq: Geoscience 627 and college level chemistry or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GLE 633 Waste Geotechnics Credits: 3
The geotechnical aspects of waste disposal and storage. Critical aspects of geotechnical design, construction, and testing relevant to the performance of earthen structures used for the storage and disposal of wastes or the remediation of contaminated sites are discussed. Prereq: Civ Engr 330 & 320 or cons inst
Typically Offered: Fall, Spring

GLE 635 Remediation Geotechnics Credits: 3
Geotechnical practice for remediation of sites containing contaminated soil and groundwater is discussed. Topics include non-invasive and invasive subsurface exploration techniques, methods to monitor for the presence of contaminants in the saturated and unsaturated zones, and geotechnically-oriented remedial action technologies. Prereq: Civ Engr 320 & 330
Typically Offered: Fall, Spring

GLE 699 Independent Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GLE 705 Advanced Rock Mechanics Credits: 3
Elastic, viscoelastic and plastic behavior of rock, crack phenomena and mechanisms of rock fracture, finite element solutions, dynamic rock mechanics, engineering and geological applications. Prereq: MS&E 474, 475, or equiv, or cons inst
Typically Offered: Occasionally

GLE 724 Groundwater Flow Modeling Credits: 3
An introduction to the principles of modeling groundwater flow systems, with emphasis on regional flow system analysis. Conceptual understanding of governing equations, and the use of finite difference techniques to solve such equations are stressed. Students develop their own codes and are introduced to packaged models, including those developed by the U. S. Geological Survey. Prereq: Geosci 627 or equivalent, calculus
Typically Offered: Occasionally

GLE 730 Engineering Properties of Soils Credits: 3
Determination and interpretation of soil properties for engineering purposes; physio-chemical properties of soil-water systems, permeability and capillarity, compression characteristics of soils, measurement of soil properties in the triaxial test, properties of frozen soils and permafrost. Prereq: Civ Engr 330
Typically Offered: Occasionally

GLE 731 Properties of Geosynthetics Credits: 3
Properties and behavior of geosynthetics (plastics sheets and geotextiles used in geotechnical and geo-environmental construction) are discussed and measured in a laboratory setting. Students learn how to measure and quantify geomechanical and hydraulic behavior of geosynthetics which are used in design. Prereq: Grad st & Civ Engr 330, or cons inst
Typically Offered: Occasionally
GLE 732 Unsaturated Soil Geoengineering Credits: 3
Engineering principles of unsaturated soils as they apply to geotechnical and geoenvironmental systems. Effect of soil water suction and stress on hydraulic conductivity, shear strength, and compressibility of soils in the context of geoengineering problems of flow and stability. Prereq: Grad st & Civ Engr/GLE 330 or cons inst
Typically Offered: Occasionally

GLE 733 Physicochemical Basis of Soil Behavior Credits: 3
Applications of physiochemical, mineralogical and environmental considerations to the engineering behavior of soils. Soil composition, formation, fabric, pore fluid chemistry and interaction of phases. The particulate nature of soils and the fabric-engineering property (volume change, strength, deformation and conduction) relationships. Prereq: Civ Engr 330 or consent of instructor
Typically Offered: Occasionally

GLE 735 Soil Dynamics Credits: 3
Geotechnical considerations of earthquake engineering and foundation vibrations. Seismic surveying; ground motion during earthquakes; determination of soil properties for ground response analysis; dynamic properties of soils; soil structure interaction effects; soil liquefaction; dynamic analysis of earth dams; settlements resulting from earthquakes, lateral earth pressures during earthquakes; foundation vibrations. Prereq: Civ Engr/EMA 530, EMA 545 or cons inst
Typically Offered: Occasionally

GLE 790 Master's Research or Thesis Credits: 1 - 9
Prereq: Grad st; Master's candidates only
Typically Offered: Occasionally

GLE 801 Special Topics in Geological Engineering Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

GLE 890 Pre-Dissertator's Research Credits: 1 - 9
Prereq: Grad st, for post-master's, pre-dissertation stdts only
Typically Offered: Occasionally

GLE 900 Seminar Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

GLE 990 Research and Thesis Credits: 1 - 9
Prereq: Grad stdt with dissertator status
Typically Offered: Occasionally

GLE 999 Independent Work Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

INDUSTRIAL & SYSTEMS ENGR

ISYE 1 Cooperative Education Program Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career in industry. Prereq: So st
Typically Offered: Fall, Spring

ISYE 191 The Practice of Industrial Engineering Credits: 1
An introduction to industrial engineering subject matter areas, problem types, and design/analysis approaches, techniques, and methodologies. Special emphasis on formulation and design alternatives for problem solving. Not open to students with advance standing in I.E. Prereq: Open to Fr
Typically Offered: Spring
I SY E 313 Engineering Economic Analysis Credits: 3
Financial accounting principles and cost systems, interpretation and use of accounting reports and supplemental information for engineering economic analyses, consideration of cost-volume-profit analyses, use of discounted cash flow techniques, flexible budgeting, transfer pricing, and capital budgeting. Prereq: MATH 217, 221, or 275 or concurrent registration
Typically Offered: Fall, Spring

I SY E 315 Production Planning and Control Credits: 3
Techniques and applications of control concepts in the design of inventory, production, quality, and project-planning systems; use of the computer as a component in such systems. Prereq: STAT 311, STAT 324, or MATH/STAT 431 or concurrent enrollment
Typically Offered: Spring

I SY E 320 Simulation and Probabilistic Modeling Credits: 3
Typically Offered: Fall, Spring, Summer

I SY E 321 Simulation Modeling Laboratory Credits: 1
Computer exercises involving generation and analysis of random variables, spreadsheet models of queuing systems, use of simulation software packages. Project. Prereq: Con reg in IE 320 or cons inst
Typically Offered: Fall, Spring, Summer

I SY E 323 Operations Research-Deterministic Modeling Credits: 3
Basic techniques for modeling and optimizing deterministic systems with emphasis on linear programming. Computer solution of optimization problems. Applications to production, logistics, and service systems. Prereq: Math 222, Math 320 or Math 340
Typically Offered: Fall

I SY E 348 Introduction to Human Factors Engineering Laboratory Credits: 1
This course provides students with hands on experience applying concepts discussed in the course Introduction to Human Factors Engineering (ISyE 349). The students complete a small three-part design project. In addition, students learn how to measure light, sound, anthropometric, and psychophysiological data, and then apply these measurements to product and workplace design challenges. Prereq: Concurrent registration in ISyE 349 and acceptance into the ISyE undergraduate or graduate program is required. Non-ISyE students may be allowed to enroll based on space availability and consent of the instructor, on a first-come basis
Typically Offered: Fall, Spring, Summer

I SY E 349 Introduction to Human Factors Credits: 3
This course conveys the importance of considering human capabilities and limits in system design and operation. This includes understanding human characteristics from the cognitive, physical, and psychosocial perspectives. Implications of these characteristics are explored through understanding the needs of people, designing to support these needs, and evaluating systems to ensure they serve the intended purpose. Case studies are used to identify the human role in accidents and to identify design improvements. Application domains include consumer product design, human-computer interaction, workplace safety, and complex systems such as healthcare delivery. Prereq: Introduction to probability
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

I SY E 350 Junior Design Laboratory Credits: 3
This course introduces industrial engineering students to the tools needed for advanced design courses through experiential learning and hands-on opportunities to conduct experiments, take relevant measurements, analyze real-world data, design systems, and to make and test prototypes of their designs. Prereq: Junior standing or higher in Industrial and Systems Engineering, Comp Sci 302 or 310, Stat 311, and ISyE 315
Typically Offered: Fall, Spring

I SY E 389 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Not available for graduate credit.
Prereq: Admission to IE Undergraduate Honors in Research Program
Typically Offered: Fall, Spring, Summer
I SY E 412 Fundamentals of Industrial Data Analytics Credits: 3  
This course will provide students with understanding of the fundamentals of using industrial data analytics techniques to transform from data-rich into decision-smart. It focuses on training students with the ability of formulating and solving real industrial problems with the appropriate modeling strategies and analytics principles for better decision making. Prereq: STAT 311 or MATH/STAT 309 or MATH/STAT 431  
Typically Offered: Spring

I SY E 415 Introduction to Manufacturing Systems, Design and Analysis Credits: 3  
Introduction to the technologies, processes and systems of modern discrete part manufacturing. Emphasis on development of an understanding of the behavior of integrated systems. Prereq: Ind Engr 315, 320, 321; or cons inst  
Typically Offered: Fall, Spring

I SY E 417 Health Systems Engineering Credits: 3  
Introduction to the application of industrial engineering methods to the analysis and improvement of health care delivery. Exploration of common problems of decision making and control in health care. Examination of social, regulatory and economic factors unique to health care. Prereq: ISyE 320, ISyE 349  
Typically Offered: Fall

I SY E 425 Introduction to Combinatorial Optimization Credits: 3  
This course focuses on optimization problems over discrete structures, such as shortest paths, spanning trees, flows, matchings, and the traveling salesman problem. We will investigate structural properties of these problems, and we will study both exact methods for their solution, and approximation algorithms. Prereq: Math 320 or 340 or 341 or 375  
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

I SY E 450 Senior Design Project Credits: 3  
This course will provide students a team-based project experience to address a real-world design challenge posed by an external organization. Student-teams will work in close collaboration with the project client to design a new system or process, or redesign an existing one, by integrating and applying appropriate ISyE knowledge, methodologies and tools for problem definition and analysis; idea generation; solution development, evaluation and justification; and implementation planning and impact assessment. Prereq: Senior standing in ISyE, and ISyE 313, ISyE 323, ISyE 349, ISyE 350, and either ISyE 415 or ISyE 417 (or concurrent registration in one of them), and EPD 397 (or concurrent reg  
Typically Offered: Fall, Spring

I SY E 460 Uncertainty Analysis for Engineers Credits: 3  
This course introduces undergraduates to approaches for quantifying uncertainty in engineering analyses. Both analytical and computational methods are demonstrated. Prereq: Statistics 311, Math 431, or consent of instructor  
Typically Offered: Fall

I SY E 476 Industrial Engineering Projects Credits: 3  
Complete design of an industrial engineering system in a real world setting, e.g., manufacturing, hospital, communications, food processing, distribution, transportation, etc. Prereq: Ind Engr 320, 321, 349; EPD 397; or cons inst  
Typically Offered: Fall, Spring

I SY E 489 Honors in Research Credits: 1 - 3  
Undergraduate honors research projects supervised by faculty members. Not available for graduate credit. Prereq: Admission to IE undergraduate Honors in Research Program  
Typically Offered: Fall, Spring, Summer

I SY E 510 Facilities Planning Credits: 3  
Introduction to plant location theory and analysis of models of plant location; models for determining plant size and time phasing; line balancing models; techniques for investigating conveyor and other material handling problems; and models of plant layout. Prereq: IE 315, 323, 349 or cons inst  
Typically Offered: Fall
I SY E 512 Inspection, Quality Control and Reliability Credits: 3
Inspection data for quality control; sampling plans for acceptance inspection; charts for process control.
Introduction to reliability models and acceptance testing. Prereq: Stat 224
Typically Offered: Spring

I SY E 513 Analysis of Capital Investments Credits: 3
A second course in quantitative methods for analyzing capital investments in technological environments, both
public and private. Replacement models; comparison of alternative investment models; risk analysis; case
studies. Prereq: Ind Engr 313, Ind Engr 323, Stat 311
Typically Offered: Fall

I SY E 515 Engineering Management of Continuous Process Improvement Credits: 3
This course addresses the role of the industrial engineer as a “manager” of continuous improvement in design
and production processes. It provides modern tools and techniques for planning and managing team projects,
integrating the concepts of total quality, data based decision making, and resource management. Prereq: EPD
397 & Sr or Grad st, or cons inst
Typically Offered: Fall

I SY E 516 Introduction to Decision Analysis Credits: 3
Overview of modeling techniques and methods used in decision analysis, including multiattribute utility models,
decision trees, and Bayesian models. Psychological components of decision making are discussed. Elicitation
techniques for model building are emphasized. Practical applications through real world model building are
described and conducted. Prereq: STAT 224, 311, 324, 371, MATH/STAT 309 or MATH/STAT 431
Typically Offered: Spring

I SY E 517 Decision Making in Health Care Credits: 3
Introduction to the use of decision sciences in health-care. Conceptual understanding of medical decision making
and its tools including decision trees, sensitivity analysis, Markow (decision) processes, and Monte Carlo
simulations with examples from the current medical literature. Prereq: STAT 311 or cons instr
Typically Offered: Fall, Spring

I SY E 520 Quality Assurance Systems Credits: 3
Introduces engineer applications of total quality concepts and tools to develop, implement, and maintain an
effective quality assurance system in a manufacturing or service organization. Emphasis is on documentation
development, team-based improvement strategies, and international quality standards. Prereq: Sr or Grad st, or
cons inst
Typically Offered: Spring

I SY E 524 Introduction to Optimization Credits: 3
Introduction to mathematical optimization from a modeling and solution perspective. Formulation of applications
as discrete and continuous optimization problems and equilibrium models. Survey and appropriate usage of basic
algorithms, data and software tools, including modeling languages and subroutine libraries. Prereq: COMP SCI
302 and MATH 320 or 340
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

I SY E 525 Linear Programming Methods Credits: 3
Real linear algebra over polyhedral cones; theorems of the alternative for matrices. Formulation of linear
Perturbation and sensitivity analysis. Applications and extensions, such as game theory, linear economic models,
and quadratic programming. Prereq: Math 443 or 320 or 340 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

I SY E 526 Advanced Linear Programming Credits: 3 - 4
Review of linear programming. Polynomial time methods for linear programming. Quadratic programs and linear
complementarity problems and related solution techniques. Solution sets and their continuity properties. Error
bounds for linear inequalities and programs. Parallel algorithms for linear and quadratic programs. Prereq:
Comp Sci 525 or equiv, 302 or equiv, or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
I SY E 549 Human Factors Engineering Credits: 3
Analysis and design of man-machine systems using human performance models and data. Emphasis on systems involving communication and control. Projects using digital and analog computer simulation techniques for system design. Prereq: IE 349 or equiv
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

I SY E 552 Human Factors Engineering Design and Evaluation Credits: 3
Evaluation, analysis, and design recommendations for improving human performance and productivity in applied settings. Collection of instrument-based and user survey data. Emphasis on ergonomics, human factors and sociotechnical systems engineering approaches and problems. Design project required. Prereq: Ind Engr 349 & EPD 397, or cons inst
Typically Offered: Occasionally

I SY E 555 Human Performance and Accident Causation Credits: 3
A systems view of accident causation, with emphasis on the human performance limitations important in industrial and other accidents. Models of causation, data collection systems, economic evaluation, and safety programs. Small group projects. Prereq: IE 349 or Psych 225 or equivalent & an intro stats crse or consent of instructor for Grad students
Typically Offered: Occasionally

I SY E 556 Occupational Safety and Health Engineering Credits: 3
Introduction to the principles of safety and health hazards in the industrial environment. This course provides engineers with the fundamentals of measurement, evaluation, regulation, and control of hazardous conditions, toxic substances, physical agents, and dangerous processes in industrial operations. Prereq: IE 349 or Grad st or cons inst
Typically Offered: Spring

I SY E 558 Introduction to Computational Geometry Credits: 3
Introduction to fundamental geometric computations and algorithms, and their use for solving engineering and scientific problems. Computer representations of simple geometric objects and paradigms for algorithm design. Applications from areas of engineering analysis, design and manufacturing, biology, statistics, and other sciences. Prereq: Comp Sci 367 or equiv, Math 223 or equiv, or cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

I SY E 559 Patient Safety and Error Reduction in Healthcare Credits: 2
Techniques for evaluating and reducing risks in medical procedures, including probabilistic risk assessment methods, failure mode and effects analysis, human factors analysis, and quality management. Discussions of patient safety standards, recommendations from agencies, and continual quality improvement. Prereq: Jr st or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

I SY E 564 Occupational Ergonomics and Biomechanics Credits: 3
Introduces engineers how to design manufacturing and industrial operations in which people play a significant role, so that human capabilities are maximized, physical stress is minimized, and workload is optimized. Examples and topics emphasize industrial applications. Prereq: ISYE 349, or Biomed Engr 315, or Grad standing
Typically Offered: Spring

I SY E 574 Methods for Probabilistic Risk Analysis of Nuclear Power Plants Credits: 3
Methods for risk and reliability analysis of engineered systems, particularly as applied in the nuclear power industry. Fault trees and event trees, Bayesian data analysis, probabilistic risk management. Some familiarity with nuclear plant safety systems is helpful, but not required. Prereq: Stat 224
Typically Offered: Occasionally

I SY E 575 Introduction to Quality Engineering Credits: 3
Introduction to statistically based quality improvement methods useful in industrial settings; observational methods and design of experiments; experimentation to discover influential factors and to analyze sources of variation; robust products. There will be a one hour discussion section each week. Prereq: One intro crse in statistical methods, or cons inst
Typically Offered: Fall
ISYE 578 Facilities Location Models Credits: 3
The theory and methods of facility location. Plant and warehouse siting, plant layout problems and location of service facilities such as hospitals and fire stations. Cases of actual applications. Prereq: OIM 410 or Ind Engr 323, or equivalent
Typically Offered: Spring

ISYE 601 Special Topics in Industrial Engineering Credits: 1 - 3
In various areas. Sample topics: "Simulation" and "Systems Design". Prereq: Junior standing and consent of instructor
Typically Offered: Fall, Spring

ISYE 602 Special Topics in Human Factors Credits: 3
Various special topics in human factors engineering. Course topic may vary from semester to semester. Different versions of this course may be offered in same semester. Prereq: Consent of instructor
Typically Offered: Occasionally

ISYE 605 Computer Integrated Manufacturing Credits: 3
An introduction to computer-integrated design and manufacturing with a focus on manufacturing process planning. Emphasis on concurrent engineering principles, manufacturing process engineering, computer-aided process planning, NC programming, and CAD/CAM integration. Course provides experience with CAD/CAM software and NC machines. Prereq: Ind Engr 315 or cons inst
Typically Offered: Fall

ISYE 608 Safety and Quality in the Medication Use System Credits: 3
Addresses the problems of medication errors and quality in health care, problem resolutions, methods of assessment, and intervention implementation and quality management. Prereq: DPH-3 st or consent of instructor
Typically Offered: Spring

ISYE 610 Design of Program Evaluation Systems Credits: 3
Design of systems for evaluating the effectiveness (efficiency, benefits, costs, resource utilization, contribution) of socio-technical systems. Measurement, analysis and interpretation of results including implications for engineering research. Extensive case studies. Prereq: Sr or Grad st in ind engr or cons inst
Typically Offered: Spring

ISYE 612 Information Sensing and Analysis for Manufacturing Processes Credits: 3
Focuses on the sensing and multivariate data modeling and analysis techniques for monitoring, diagnosis, and quality improvement of manufacturing processes. The techniques introduced can find wide applications in health care, financial engineering, service industry applications, human factors, etc. Prereq: Math 320 & Stat 311, Sr or Grad st, or cons inst
Typically Offered: Fall

ISYE 615 Production Systems Control Credits: 3
An intermediate to advanced course stressing the application of recent operations research techniques to production planning, scheduling and inventory control. Prereq: IE 315, 320, 321, 323, Stat 311, 312
Typically Offered: Occasionally

ISYE 617 Health Information Systems Credits: 3
Provides grounding in core concepts of health information systems. Major applications include clinical information systems, language and standards, decision support, image technology and digital libraries. Evaluation of IE tools and perspectives designed to improve the quality, efficiency and effectiveness of health information. Prereq: ISYE 417
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ISYE 620 Simulation Modeling and Analysis Credits: 3
Introduction to simulation modeling and analysis techniques with application to production, logistics, service, and other systems. Emphasis on model building, application of basic statistical data analysis, and the use of simulation for design, evaluation, and improvement of such systems. Introduction to available software. Case studies. Prereq: Comp Sci 302 or equiv & Stat 312 or equiv
Typically Offered: Spring
I SY E 624 Stochastic Modeling Techniques Credits: 3
Techniques for modeling systems in which uncertainty is an essential factor. Emphasizes why, how and when techniques can or cannot be applied, rather than their mathematical derivation. Case studies and/or examples from such areas as logistics, production, and service industries. Prereq: Stat 311, Math 320 or Math 340
Typically Offered: Fall, Spring

I SY E 632 Introduction to Stochastic Processes Credits: 3
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

I SY E 633 Queuing Theory and Stochastic Modeling Credits: 3
Reliability theory; coherent systems and reliability bounds. Markovian queues and Jackson networks. Steady-state behavior of general service time queues. Priority queues. Approximation methods and algorithms for complex queues. Simulation. Dynamic programming; applications to inventory and queueing. Prereq: Math, Ind Engr 632 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

I SY E 635 Tools and Environments for Optimization Credits: 3
Formulation and modeling of applications from computer sciences, operations research, business, science and engineering involving optimization and equilibrium models. Survey and appropriate usage of software tools for solving such problems, including modeling language use, automatic differentiation, subroutine libraries and web-based optimization tools and environments. Prereq: Comp Sci302, Math 340 or equiv
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

I SY E 641 Design and Analysis of Manufacturing Systems Credits: 3
Covers a broad range of techniques and tools relevant to the design, analysis, development, implementation, operation and control of modern manufacturing systems. Case studies assignments using industry data will be used to elaborate the practical applications of the theoretical concepts. This course also serves as a capstone course for the MSMSE degree. Prereq: Grads: MSE major or consent of instructor; Undergrads: IE 315 or 605, & consent of instructor
Typically Offered: Spring

I SY E 643 Performance Analysis of Manufacturing Systems Credits: 3
This course examines the state of the art in the use of stochastic network theory to develop performance models of modern manufacturing systems. Prereq: ISyE 624 or ISyE 632, Comp Sci 302 or Comp Sci 367 or Graduate standing
Typically Offered: Occasionally

I SY E 645 Engineering Models for Supply Chains Credits: 3
The course will provide an overview of engineering fundamentals behind supply chains. Topics covered will include modeling and design of multi-stage production distribution systems, multi-echelon inventory models, theory of supply chain contracts, value of flexibility and information sharing in supply chains. Prereq: ISyE 323, ISyE 415
Typically Offered: Fall

I SY E 652 Sociotechnical Systems Credits: 3
Sociotechnical systems theory with applications to the design of organizations and jobs. Open systems and organizational environments. Analysis of the technical and social systems and techniques for “whole” system consideration. Organizational design strategy. Field site analyses by student teams. Prereq: Grad st or IE 349
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

I SY E 653 Organization and Job Design Credits: 3
Design of productive organizations and people’s roles within them. Issues including boundary location, organizational decision levels, autonomous work groups, implementation and diffusion. Roles of the union. Case studies. Prereq: Grad st or IE 349
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
I SY E 662 Design and Human Disability and Aging Credits: 3
Design of products for persons with physical, sensory or cognitive impairments is covered as well as the design of standard mass market products. Interdisciplinary teams explore specific disabilities, then design a standard mass market product in competition with each other. Prereq: Jr st or cons inst
Typically Offered: Spring

I SY E 671 E-Business: Technologies, Strategies and Applications Credits: 3
Overview of core concepts of e-commerce and e-business technologies, strategies and applications. Covers business-to-consumer, business-to-business and intra-business models by using real-world examples and cases from various industries. Prereq: Senior or Graduate standing
Typically Offered: Fall

I SY E 699 Advanced Independent Study Credits: 1 - 5
Under faculty supervision. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

I SY E 702 Graduate Cooperative Education Program Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with a background on which to develop and enhance a professional career. The work experience is tailored for MS students from within the U.S. as well as eligible international students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

I SY E 703 Quality of Health Care: Evaluation and Assurance Credits: 1 - 3
Implementation, oversight, and management of quality-oriented activities in health care settings. Overview of current and historical activities, approaches, and issues confronting health care related to quality assessment, assurance, and improvement. Prereq: Major or minor in population health, or cons inst
Typically Offered: Occasionally

I SY E 708 Societal Risk Management of Technological Hazards Credits: 3
Issues involved in decision-making regarding technological risks and risk management in areas such as nuclear power, hazardous waste disposal, and pollution control. Risk perception and cognitive biases; risk analysis and decision analysis; political issues in risk management; regulatory mechanisms; and risk communication. Selected case studies. Prereq: Stat 311 or Math 431 or Soc 360, IE 516, & Grad st; or cons inst
Typically Offered: Occasionally

I SY E 719 Stochastic Programming Credits: 3
Stochastic programming is concerned with decision making in the presence of uncertainty, where the eventual outcome depends on a future random event. Topics include modeling uncertainty in optimization problems, risk measures, stochastic programming algorithms, approximation and sampling methods, and applications. Prereq: Comp Sci 525; Math 431 or Stat 311; or cons inst
Typically Offered: Occasionally

I SY E 722 Computer-Based Data Management Credits: 3
Use, control and administration of centralized and distributed data bases. Topics include the definition, design, creation, revision, interrogation, update, security and integrity of data bases. Prereq: Info Sys 371 or cons inst
Typically Offered: Occasionally

I SY E 723 Dynamic Programming and Associated Topics Credits: 3
Typically Offered: Occasionally
I SY E 726 Nonlinear Optimization I Credits: 3
Theory and algorithms for nonlinear optimization, focusing on unconstrained optimization. Line-search and trust-region methods; quasi-Newton methods; conjugate-gradient and limited-memory methods for large-scale problems; derivative-free optimization; algorithms for least-squares problems and nonlinear equations; gradient projection algorithms for bound-constrained problems; and simple penalty methods for nonlinearly constrained optimization. Prereq: Familiarity with basic mathematical analysis and either Math 443 or 320; or cons inst
Typically Offered: Occasionally

I SY E 727 Convex Analysis Credits: 3
Typically Offered: Occasionally

I SY E 728 Integer Optimization Credits: 3
Introduces optimization problems over integers, and surveys the theory behind the algorithms used in state-of-the-art methods for solving such problems. Special attention is given to the polyhedral formulations of these problems, and to their algebraic and geometric properties. Applicability of Integer Optimization is highlighted with applications in combinatorial optimization. Key topics include: formulations, relaxations, polyhedral theory, cutting planes, decomposition, enumeration. Prereq: COMP SCI/MATH/STAT/I SY E 525
Typically Offered: Occasionally

I SY E 729 Behavioral Analysis of Management Decision Making Credits: 3
Examination of behavioral science literature dealing with the processes by which individuals, small groups and organizations make decisions. Understanding decision-making behavior in order to improve managerial performance; modeling decision-making processes for systems design and theory building purposes. Prereq: Intro course in mgmt processes & intermediate course in stat
Typically Offered: Occasionally

I SY E 730 Nonlinear Optimization II Credits: 3
Typically Offered: Occasionally

I SY E 790 Master's Research and Thesis Credits: 1 - 9
Prereq: Grad st; Master's candidates only
Typically Offered: Occasionally

I SY E 816 Special Topics in Systems Design Credits: 1 - 3
Subjects vary. Prereq: Cons inst
Typically Offered: Occasionally

I SY E 823 Special Topics in Operations Research Credits: 1 - 3
Subjects vary. Prereq: Cons inst
Typically Offered: Occasionally

I SY E 854 Special Topics in Organization Design Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

I SY E 859 Special Topics in Human Factors Engineering Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

I SY E 875 Assessment of Medical Technologies Credits: 3
Basic ideas and tools of cost effectiveness analysis as applied in evaluating medical technologies. Addresses special problems and methods in assessing diagnostic technologies, including ROC analysis, and in measuring health for technology assessment. Uses "classical" and current journal literature. Prereq: Pop Hlth 797 & 800; or cons inst
Typically Offered: Occasionally
ISYE 890 Pre-Dissertator's Research  Credits: 1 - 9  
Prereq: Grad st; pre-dissertators only  
Typically Offered: Occasionally

ISYE 961 Graduate Seminar in Industrial Engineering  Credits: 1 - 3  
Prereq: Cons inst  
Typically Offered: Occasionally

ISYE 990 Research and Thesis  Credits: 1 - 6  
Prereq: Dissertator status & cons inst  
Typically Offered: Occasionally

ISYE 999 Advanced Independent Study  Credits: 1 - 6  
Under staff supervision. Prereq: Cons inst  
Typically Offered: Occasionally

INTERDIS COURSES (ENGR)

INTEREGR 101 Contemporary Issues in the Engineering Profession  Credits: 2  
A survey of the engineering profession's contemporary role in society. Emphasis on the engineer's responsibility to society, including concerns for business principles, safety, ethics, and the environment; the role of engineers in achieving economic stability, growth, and improving the human condition. Prereq: Open to Fr & So only  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTEREGR 102 Introduction to Society's Engineering Grand Challenges  Credits: 2  
Description and discussion of how engineering disciplines address specific engineering grand challenges in society. Focus on societal and multicultural issues encountered in engineering, as well as economic, ethical and political constraints on engineering solutions. Development of students' professional skills. Prereq: Fr or So st, or cons inst. Open to Fr  
Typically Offered: Fall, Spring

INTEREGR 103 Core Competencies for Engineering Leaders  Credits: 2  
Leadership is a core aspect of successful engineers, but it is rarely part of a formal curriculum. The course provides a solid foundation of leadership theory and practice to help future engineering professionals to be more effective in their technical work. Prereq: None  
Typically Offered: Fall, Spring

INTEREGR 110 Introduction to Engineering  Credits: 1  
For first-year students in the College of Engineering. Introduction to engineering disciplines and professional fields; engineering design process; grand challenges; sustainability, societal, multicultural and global issues encountered in engineering; economic and ethical constraints on engineering solutions; and employment and educational opportunities in engineering. Prereq: None  
Typically Offered: Fall, Spring

INTEREGR 111 Introduction to the Engineering Design Process and Profession  Credits: 2  
Introduction to the engineering design process and profession through applied problem-solving. Emphasis on the engineering design process in industry, teamwork and communication skills; the engineer's responsibilities to customers and society; and the role of engineers in improving the human condition. Prereq: None  
Typically Offered: Fall

INTEREGR 150 Directed Studies in Engineering Foundation Courses  Credits: 0  
Directed study through College of Engineering Supplementary Instruction program. Group discussion and problem-solving coaching to enhance understanding of physics and its applications to engineering. Open only to students with engineering classification. Prereq: Enrollment in coll of engr. Open to Fr  
Typically Offered: Fall, Spring

INTEREGR 160 Introduction to Engineering Design  Credits: 3  
This course provides the incoming freshman with an overview of engineering based on a "hands-on" experience with a client-centered engineering design project, which includes: 1) a team-based design project, 2) a survey of engineering disciplines, and 3) an introduction to computer tools and lab techniques. Prereq: HS physics or chem with con reg in calculus, or cons inst. Restricted to Fr only  
Typically Offered: Fall
INTEREGR 170 Design Practicum  Credits: 2
For first-year students in the College of Engineering. Introduction to design via the invention, fabrication and
testing of a device that solves a problem proposed by a real world client. Lectures address information retrieval
techniques, specification writing, methods for enhancing creativity, analysis techniques, scheduling, selection
methodologies, cost estimating, sustainability in design, shop safety, fabrication equipment and techniques, and
oral and written communication.  Prereq:  None
Typically Offered:  Fall, Spring

INTEREGR 301 Engineering and Biology: Technological Symbiosis  Credits: 1 - 4
Combining engineering with biology can result in fascinating new technologies. This course explores 3 topics at
the very forefront of bio-engineering innovation as well as the social, political, and ethical issues that can affect
realization.  Prereq:  ME 306 or ECE 230 or CBE 320 or MS&E 330 or Civ Engr 320 or EMA 303 or BSE 249
Typically Offered:  Fall

INTEREGR 400 Dean's Leadership Class  Credits: 1
The focus of this course is to help leaders of student organizations learn about and practice essential leadership
skills, and develop constructive viewpoints on leadership.
Typically Offered:  Fall

INTEREGR 413 Current Issues in International Engineering  Credits: 1
Provides a comparative examination and analysis of global trends and regional variations for engineering
concepts, standards and practices. Using organizational case studies, the course will describe and analyze multi-
national engineering operations and summarize best practices and caveats.  Prereq:  Admission to Intl Engr Cert
Progm or cons inst
Typically Offered:  Spring

INTEREGR 601 Topics in Interdisciplinary Engineering  Credits: 1 - 3
Interdisciplinary topics of special interest to undergrad and grad students in engineering.  Prereq:
Typically Offered:  Fall, Spring

INTEREGR 650 Women and Leadership in Medicine, Science and Engineering  Credits: 1 - 3
Review and discussion of research on effective leadership; gender differences in leadership; unconscious
assumptions about behaviors and traits of leaders; and approaches to counteracting biases. Required
assignments vary with credits from reflective journal to literature review to research project.  Prereq:  Graduate
students, Professional students: Upper-level undergrads with consent of instructor
Typically Offered:  Spring

MATERIALS SCI AND ENGINEERING

M S & E  1 Cooperative Education Program  Credits: 1
Work experience which combines classroom theory with practical knowledge of operations to provide students
with a background upon which to base a professional career.  Prereq:  So st
Typically Offered:  Fall, Spring, Summer

M S & E  150 Materials Science for Non-Engineers  Credits: 3
A non-mathematical treatment of the structure and resulting properties of metals, plastics, ceramics, glasses and
composite materials. The interaction between materials and the environment, heat, mechanical forces, light,
electric and magnetic fields.  Prereq:  HS chem or physics. Open to Freshmen
Typically Offered:  Occasionally

M S & E  250 Introduction to Modern Materials  Credits: 1
This course is designed to provide incoming students with an overview of the structure of materials and the
relation to properties. Special emphasis is placed on modern materials and recent advancements in their
application.  Prereq:  Open to Fr or stdts who have not declared a major
Typically Offered:  Fall, Spring

M S & E  299 Independent Study  Credits: 1 - 3
Prereq:  Open to Freshmen. Consent of instructor
Typically Offered:  Occasionally
MS & E 330 Thermodynamics of Materials Credits: 4
Introduction to thermodynamics of materials, equilibrium constants, solutions, heterogeneous equilibria and electrochemistry. Prereq: Chem 104 & Math 222
Typically Offered: Fall

MS & E 331 Transport Phenomena in Materials Credits: 3
Basic principles of fluid flow, heat transfer and diffusion are introduced. Examples relevant to design and processing of materials including metals, semiconductors, glasses, polymers, and ceramics are given. Prereq: MS&E 330
Typically Offered: Spring

MS & E 332 Macroprocessing of Materials Credits: 3
Topics include: ironmaking and steelmaking; production of Cu, Zn, Al and Mg by electrolysis; solidification processing of alloys by ingot casting, continuous casting and directional solidification; growth of bulk single crystals of semiconductors and ceramics from melts. Prereq: MS&E 330
Typically Offered: Fall

MS & E 333 Microprocessing of Materials Credits: 3
Integration of materials science theory and materials engineering practice as applied to the processing of materials at the microscopic level. Prereq: MS&E 332 or cons inst
Typically Offered: Spring

MS & E 350 Introduction to Materials Science Credits: 3
Basic structure and resulting properties, phase equilibria, metastability, rate and growth processes in solids. Prereq: Chem 103 or equivalent or consent of instructor
Typically Offered: Fall, Spring, Summer

MS & E 351 Materials Science-Structure and Property Relations in Solids Credits: 3
Introduction to: atomic, electronic, and defect structures in materials; diffusional, mechanical and electrical properties of materials; and the role of structure and defects in diffusional, mechanical, and electrical properties. Prereq: Chem 104 or equivalent
Typically Offered: Fall

MS & E 352 Materials Science-Transformation of Solids Credits: 3
The basic factors that determine phase equilibria, structural and transformation characteristics of solids. Principles governing the thermodynamics and kinetics of phase transformations and microstructure evolution. Nucleation and growth processes in precipitation, recrystallization, solidification, oxidation, martensitic, ordering and spinodal reactions. Transformation behavior in polymers, biomaterials and nanomaterials. Prereq: MS&E 350, or 351 or consent of instructor
Typically Offered: Spring

MS & E 360 Materials Laboratory I Credits: 1
Laboratory instruction in sample preparation for and applications of quantitative microscopy, x-ray diffraction, and properties measurement in the context of structure-property relationships in materials. Prereq: MS&E 350, 351, or CBE 440 or concurrent registration
Typically Offered: Fall, Spring

MS & E 361 Materials Laboratory II Credits: 2
Experimental principles of materials science. Thermal, kinetic, structural, and materials synthesis experiments and associated concepts, data analysis, and presentation. Prereq: MS&E 351 or concurrent registration & MS&E 360 or equivalent
Typically Offered: Spring

MS & E 362 Materials Laboratory III Credits: 2
Experiments in the mechanical and electronic properties of matter in bulk and thin films; computer instrument control; and data analysis. Prereq: MS&E 352 or concurrent registration & MS&E 361
Typically Offered: Fall
The purpose of this course is to familiarize students with a variety of modern characterization techniques. Three general subject areas are covered: Physical Properties: Thermogravimetric analysis (TGA); differential scanning calorimetry (DSC); dynamic mechanical analysis (DMA); gel permeation chromatography (GPC). Spectroscopy, optical and x-ray: Ultraviolet/visible (UV/VIS), molecular-infrared/Raman, Rheology; x-ray crystal and powder diffraction. Microscopy: scanning electron microscopy (SEM); SEM and energy dispersive analysis (EDS).

Prereq: M S & E 350 and M S & E 351
Typically Offered: Spring

Special topics of interest to students in materials science and engineering. Prereq: So st
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

Polymer chemistry and physics terminologies, structure-property relationship, polymer characterization, polymer synthesis, material requirements for optoelectronics including conjugated polymers, thin film transistors, light emitting diodes, non-linear optical materials, holographic data storage and liquid crystal polymers. Prereq: Chem 341 or equiv
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

Fundamentals of fuel and cladding behavior in terms of thermal properties, chemical behavior and radiation damage. Prereq: MS&E 350 or 351
Typically Offered: Occasionally

Typically Offered: Occasionally

Introduction to major thin-film deposition techniques and properties of thin films. Evaporation, plasma assisted processes with emphasis on sputter deposition, chemical vapor deposition ion beams. Film properties and characterization methods, applications. Prereq: MS&E 330 and 351, or equiv
Typically Offered: Fall, Spring

Typically Offered: Spring

Elastic and plastic deformation of real solids. Dislocation theory with applications to metals and alloys. Fracture, fatigue, brittle failure and methods for measuring the mechanical properties of materials. Prereq: EMA 214 or concurrent registration or consent of instructor, & MS&E 352 or concurrent registration
Typically Offered: Fall

Applications of the phase rule to metallurgical and mineralogical reactions. Prereq: Sr st
Typically Offered: Occasionally

Crystal symmetry, projection methods, X-ray studies of structural problems in the solid state. Prereq: Consent of instructor
Typically Offered: Fall
M S & E 451 Introduction to Ceramic Materials Credits: 3
Primary objectives are to: 1) analyze how atoms and ions combine to form 3D crystals and glasses; 2) examine phase equilibria to understand the driving forces for the formation of particular ceramic phases; 3) introduce and discuss the nature of defects in ceramics; 4) discuss the migration of matter and of charge in ceramics; and 5) discuss properties and processing technologies of ceramics. Prereq: MS&E 330 & 352
Typically Offered: Fall

M S & E 456 Electronic, Optical, and Magnetic Properties of Materials Credits: 3
Quantitative description of electronic, optical, and magnetic structure-property relationships of materials. Strategies for the development of new materials and introduction to applications of these materials. Prereq: M S & E 333, M S & E 352, and (PHYSICS 202, 208 or 248)
Typically Offered: Fall

M S & E 461 Advanced Metal Casting Credits: 3
Metallurgical and engineering principles applied in the foundry and related industries, primarily for those interested in foundry engineering. Prereq: ME 311 or MS&E 370
Typically Offered: Occasionally

M S & E 462 Welding Metallurgy Credits: 3
Metallurgical principles applied to welding; mechanisms of strengthening, phase equilibria, and microstructure of the weld zone. Modern processes including laser and electron beam welding. Prereq: MS&E 370 or ME 313 and MS&E 350 or cons inst
Typically Offered: Occasionally

M S & E 463 Materials for Elevated Temperature Service Credits: 3
The design, properties, processing and selection of high temperature materials for structural applications. The fundamentals of diffusion, phase transformations, dislocation motion and oxidation governing the high temperature mechanical properties and structural performance of metallic and ceramic materials. Prereq: Consent of instructor or senior standing
Typically Offered: Occasionally

M S & E 465 Fundamentals of Heat Treatment Credits: 3
Principles of phase transformations, heat transfer and mechanical properties as applied to heat treatment practice. The design, modeling and analysis of heat treatment processes. Prereq: Senior standing
Typically Offered: Occasionally

M S & E 470 Capstone Project I Credits: 1
Capstone experiences in materials design, selection, and application for MS&E students. Emphasis on creativity and application of fundamental principles of public identification, experimental design, data acquisition and analysis, and presentation of results. Prereq: MS&E 331, MS&E 352 and MS&E 362
Typically Offered: Fall

M S & E 471 Capstone Project II Credits: 3
Capstone experiences in materials design, selection and application for MS&E students. Emphasis on creativity and application of fundamental principles in problem identification, experimental design, data acquisition and analysis, and presentation of results. Prereq: MS&E 470
Typically Offered: Spring

M S & E 474 Rock Mechanics Credits: 3
Classification of rock masses, stress and strain in rock, elastic and time-dependent behavior of rock, state of stress in rock masses, failure mechanisms, lab testing, geological and engineering applications. Prereq: EMA 201 or 214, 304, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M S & E 475 Rock Mechanics Applications to Environmental Problems Credits: 3
Classification of rock for specific engineering purposes, in situ testing, applications to surface mining and slope stability, applications to underground mining and excavations, applications to waste disposal and underground storage, applications to novel methods of in situ mining, applications to earthquakes. Prereq: MS&E 474 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
M S & E 521 Advanced Polymeric Materials Credits: 3
This course is directed at graduate and advanced undergraduates with focused interest in polymeric materials. Basic principles of compatibility between macromolecules and small molecules, physical chemistry of blends and concepts in phase separation, and selected topics on materials design using self-assembly concepts. Prereq: M S & E/CHEM 421
Typically Offered: Fall

M S & E 530 Thermodynamics of Solids Credits: 3
Thermodynamics of condensed matters as applied to materials science and engineering. Prereq: MS&E 330 or equiv
Typically Offered: Fall

M S & E 541 Heterogeneous and Multiphase Materials Credits: 3
Principles of the mechanics of solid multiphase systems. Role of heterogeneity and anisotropy in determining physical properties including elastic, dielectric and piezoelectric properties. Applications in lightweight structures, ultrastrong materials, materials for protection of the body, and materials for the replacement of human tissues. Materials with fibrous, lamellar, particular, and cellular structures. Heterogeneous materials of biological origin. Biomimetic and bio-inspired materials. Prereq: EMA 303 or ME 306 or MS&E 441 or equivalent
Typically Offered: Fall

M S & E 544 Processing of Electronic Materials Credits: 3
Physics and chemistry principles underlying microelectronic materials processing. Effects of processing on materials and structures important in microelectronic and opto-electronic devices. Prereq: CBE 440 or MS&E 351 or ECE 335; or cons inst
L&S Level: Intermediate Typically Offered: Occasionally

M S & E 551 Structure of Materials Credits: 3
Atomic, nanoscale and microscale structure of materials. Course is designed for first year graduate students with interests in materials research. Prereq: Graduate standing or M S & E 351 and M S & E 451
Typically Offered: Spring

M S & E 553 Nanomaterials & Nanotechnology Credits: 3
The principal objectives of the course are to: i) introduce advanced processing methods for synthesizing nanomaterials, ranging from single nanoparticles to three-dimensional nanostructures, ii) discuss important thermodynamic and kinetic theories related to such processing, iii) describe methods for characterizing the structure and properties of nanomaterials, iv) discuss current and emerging applications for nanomaterials, and v) illustrate the interdisciplinary nature of nanotechnology and address critical challenges. Prereq: Senior or graduate student status in a physical sciences program
Typically Offered: Spring

M S & E 560 Fundamentals of Atomistic Modeling Credits: 3
Introduction to basic concepts of atomistic modeling in materials, including classical and quantum mechanical energy methods, energy optimization, molecular statistics, molecular dynamics, and Monte Carlo. Relevant aspects of thermodynamics, statistical mechanics, quantum mechanics, and computer programming will also be presented. Prereq: Sr st or cons inst
Typically Offered: Fall

M S & E 570 Properties of Solid Surfaces Credits: 3
Introduction to structure and electronic properties; surface energy; thermodynamics of surfaces; diffusion. Surface barriers, work function, vibrational and electronic states. Chemical interactions: chemisorption, oxidation, corrosion, absorption kinetics, catalysis. Experimental methods and applications in metals, semiconductors. Prereq: Cons inst
Typically Offered: Occasionally

M S & E 699 Independent Study Credits: 1 - 4
Courses in Metallurgical Engineering
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
M S & E 702 Graduate Cooperative Education Program Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with a background on which to develop and enhance a professional career. The work experience is tailored for MS students from within the U.S. as well as eligible international students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

M S & E 705 Advanced Rock Mechanics Credits: 3
Elastic, viscoelastic and plastic behavior of rock, crack phenomena and mechanisms of rock fracture, finite element solutions, dynamic rock mechanics, engineering and geological applications. Prereq: MS&E 474, 475, or equiv, or cons inst
Typically Offered: Occasionally

M S & E 748 Structural Analysis of Materials Credits: 3
Introduction to transmission electron microscopy of materials, including imaging, diffraction, and microanalysis. Prereq: MS&E 448
Typically Offered: Occasionally

M S & E 750 Imperfections and Mechanical Properties Credits: 3
Mathematical theory of dislocations and other crystal imperfections; mechanical properties of crystals in relation to imperfections. Prereq: Cons inst
Typically Offered: Occasionally

M S & E 751 Advanced Materials Science: Diffusion and Reactions Credits: 3
Selected topics in materials science and engineering such as phase stability, diffusion and kinetic processes in metals, semi-conductors and ceramics. Prereq: MS&E 352 or equiv
Typically Offered: Occasionally

M S & E 752 Advanced Materials Science: Phase Transformations Credits: 3
Phase transformations, nucleation theory and the role of structural imperfections, alloy phase equilibria, interface reactions and growth kinetics, continuous transformations. Prereq: MS&E 352 and 530 or equivalent
Typically Offered: Occasionally

M S & E 756 Structure and Properties of Advanced Electronic Materials Credits: 3
Prepares graduate students for research in electronic materials and related areas by examining (1) how does the physical structure of a material affect its electronic structure and properties; and (2) state-of-the-art advance electronic materials. Topics include: molecular and organic semiconductors; carbon nanomaterials (nanotubes, nanoribbons and graphene); advances in conventional bulk zinc-blende and wurtzite semiconductors; polycrystalline, amorphous, and disordered materials; state-of-the-art high- & low-k dielectrics; and up-and-coming and next-generation materials. Prereq: Physics 551 or MS&E 456 or equivalent
Typically Offered: Fall

M S & E 758 Transmission Electron Microscopy Laboratory Credits: 1
An introduction to the practice of transmission electron microscopy (TEM) and TEM sample preparation through hands-on laboratory training. Prereq: MS&E 748 or con reg & cons inst
Typically Offered: Occasionally

M S & E 760 Molecular Dynamics and Monte Carlo Simulations in Materials Science Credits: 3
Students will learn algorithms and develop codes for molecular dynamics (MD) and Monte Carlo (MC) simulations of materials. Techniques for parallel programming (MPI) will be introduced and practiced. Advanced techniques based on MD and MC will be presented. Prereq: Grad st or cons inst
Typically Offered: Spring

M S & E 790 Master's Research or Thesis Credits: 1 - 9
Prereq: Grad st, for Master's candidates only
Typically Offered: Occasionally

M S & E 803 Special Topics in Materials Science Credits: 1 - 3
Prereq: Graduate or professional standing
Typically Offered: Occasionally
M S & E  890 Pre-Dissertator's Research  Credits: 1 - 9  
Prereq:  Grad st, for post-master's, pre-dissertator stdts only  
Typically Offered:  Occasionally

M S & E  900 Materials Research Seminar  Credits: 1  
Introduces graduate students to the breadth, wealth and practices of materials research at the University of Wisconsin and in the professional materials research community.  Prereq:  Intended for, but not limited to, 1st yr grad stdts  
Typically Offered:  Occasionally

M S & E  990 Research and Thesis  Credits: 1 - 9  
Prereq:  Graduate or professional standing and consent of instructor  
Typically Offered:  Occasionally

M S & E  999 Independent Work  Credits: 1 - 3  
Prereq:  Graduate or professional standing and consent of instructor  
Typically Offered:  Occasionally

MECHANICAL ENGINEERING

M E  1 Cooperative Education Program  Credits: 1  
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career in industry.  Prereq:  So st  
Typically Offered:  Fall, Spring, Summer

M E  151 Introduction to Mechanical Engineering  Credits: 2  
Introduction to the field of Mechanical Engineering through problem-solving in the context of small group projects. Fabricate, build, and test prototypes. Introduction to computer software of particular relevance to Mechanical Engineers.  Prereq:  None  
Typically Offered:  Fall, Spring

M E  160 Architectural Graphics  Credits: 3  
The skill of communicating through the graphic media of freehand and instrumental drawing. Architectural presentation, isometric, perspective and shades and shadows.  Prereq:  Open to Freshmen  
Typically Offered:  Fall, Spring

M E  170 Civil Engineering Graphics  Credits: 2  
To develop an awareness of and appreciation for work that is characteristic of civil engineering. Graphical communication including lettering, drawing equipment and techniques; geometric construction, orthographic projections, pictorial drawing, and technical sketching, isometric, oblique and perspective projections, descriptive geometry, computer-aided design drawing, applications to civil engineering problems.  Prereq:  Open to All Undergrads  
Typically Offered:  Fall, Spring

M E  231 Introductory Engineering Graphics  Credits: 2  
A freshman level course which provides the undergraduate engineering student with a background in descriptive geometry, orthographic projection, engineering drawing standards and annotation, and computer-aided engineering graphics. Point line and plane relationships in projection; multi-view engineering drawings; auxiliary and section views; basic dimensioning and annotation; engineering applications.  Prereq:  Pre-admission to College of Engr. Open to Fr  
Typically Offered:  Fall, Spring

M E  240 Dynamics  Credits: 3  
Rectilinear and curvilinear motion of a particle: force, mass, acceleration; work, potential, and kinetic energy; impulse and momentum; kinematics of rigid bodies; moving coordinate systems with relative motion; general planar rigid body kinematics and kinetics. Applications to linkages, cams and geared systems.  Prereq:  EMA 201, Math 222  
Typically Offered:  Fall, Spring
M E 273 Engineering Problem Solving with EES Credits: 1
This course will serve the dual purpose of providing students with a high level of proficiency in the Engineering Equation Solver software as well as giving students the opportunity to solve high-level engineering problems using this tool. Students leaving the course will have a very solid understanding of equation solving software including advanced features that would not be covered in any other class on campus. Students will also get another opportunity to apply sophisticated computing tools to engineering applications. Prereq: Math 222
Typically Offered: Fall, Spring

M E 291 Undergraduate Mechanical Engineering Projects Credits: 1 - 3
Individual lab projects under staff supervision. Prereq: Cons inst. Apprvl of ME dept comm
Typically Offered: Fall, Spring, Summer

M E 299 Independent Study Credits: 1 - 3
Prereq: Cons inst. Aprvl of ME dept comm
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

M E 306 Mechanics of Materials Credits: 3
Mechanical stress and strain, deformation under tension and compression, torsion of shafts, beam bending stresses and deflections, design of beams and shafts, pressure vessels, principal stress and strain, buckling, impact, strain energy analysis. Prereq: EMA 201, Math 222
Typically Offered: Fall, Spring, Summer

M E 307 Mechanics of Materials Lab Credits: 1
Data processing, tension/compression tests, creep stress concentrations, fatigue, fracture, composite materials, combined stress, beam flexure, dynamic loads, buckling. Prereq: ME 306 or concurrent registration
Typically Offered: Fall, Spring, Summer

M E 313 Manufacturing Processes Credits: 3
A quantitative and qualitative study of manufacturing processes including machining, forming; welding, and casting for metals; and extrusion, injection molding, thermoforming, and blow molding for plastics. Emphasis on process selection for optimum design. Laboratory experiments and demonstrations. Quality, strength, and economic evaluations. Prereq: MS&E 350 or cons inst
Typically Offered: Fall, Spring

M E 314 Manufacturing Fundamentals Credits: 3
An introduction to techniques for modeling in materials processing and improving decision making in increasing the productivity of design and manufacturing processes. Quality improvement and engineering simulation tools are presented as well as the methods of engineering economy and the role of manufacturing automation and systems, through lectures and laboratories. Prereq: Stat 224 & ME 313 or cons inst
L&S Level: Intermediate Typically Offered: Fall, Spring

M E 331 Geometric Modeling for Engineering Applications Credits: 3
A junior level course introduces undergraduate engineering students to fundamental concepts in geometric modeling of engineering form, and computer-aided design of shapes, components, and assemblies. Lectures are reinforced by the laboratory experience where students operate modern commercial computer-aided design systems to model and to learn the basics of engineering communication, specification, and annotation. Prereq: ME 231 & Math 320 & Comp Sci 302 & either ME 240 or EMA 202
Typically Offered: Fall, Spring

M E 340 Introduction to Dynamic Systems Credits: 3
Mathematical modeling and analysis of dynamic systems with mechanical, thermal, and fluid elements. Topics: time domain solutions, analog computer simulation, linearization techniques, block diagram representation, numerical methods and frequency domain solutions. Prereq: Comp Sci 302, ME 240 or EMA 202 or equiv, Math 320
Typically Offered: Fall, Spring

M E 342 Design of Machine Elements Credits: 3
Analysis and design of machine elements and machines; loads, stresses, deflections, material selection, fatigue failure, finite elements; mechanical power transmission components including gearing, bearings, shafting, and frictional devices. Prereq: ME 306, 307 or EMA 307, and ME 331, 340
Typically Offered: Fall, Spring, Summer
M E 349 Engineering Design Projects Credits: 3
Applied engineering design projects. Emphasis on design of practical mechanical engineering systems, devices and/or components. Two 2-hr labs and one lecture per week. Lecture focuses on the design process, creativity, patents, and other applications to practical problems. Prereq: ME 314, 342 & 364
Typically Offered: Fall, Spring, Summer

M E 351 Interdisciplinary Experiential Design Projects I Credits: 3
First of a two-course sequence in which students design and fabricate systems and devices, typically having an interdisciplinary aspect. In the first course, emphasis will be on project planning, team dynamics, problem identification, and conceptual design and evaluation. Prereq: Sr st in ME or cons inst
Typically Offered: Fall, Spring

M E 352 Interdisciplinary Experiential Design Projects II Credits: 3
Second of a two-course sequence in which students design and fabricate systems and devices, typically having an interdisciplinary aspect. In the second course, emphasis will be on detailed design, fabrication, testing, and modification of concepts developed in the previous course. Prereq: ME 351 & Sr st in ME or cons inst
Typically Offered: Fall, Spring

M E 361 Thermodynamics Credits: 3
First and second laws of thermodynamics; thermodynamic properties of gases, vapors, and gas-vapor mixtures; energy-systems analysis including power cycles, refrigeration cycles and air-conditioning processes. Introduction to thermodynamics of reacting mixtures. Prereq: Math 234 & Comp Sci 302, ME 240 or EMA 202, or equivalent
Typically Offered: Fall, Spring

M E 363 Fluid Dynamics Credits: 3
Laws of mechanics and thermodynamics applied to fluids at rest and in motion; potential flow; dimensional analysis; viscous flow; pipe flow; boundary-layer theory; compressible flow. Prereq: Math 320, ME 361 & Comp Sci 302 or equiv
Typically Offered: Fall, Spring

M E 364 Elementary Heat Transfer Credits: 3
Fundamental concepts of conduction, convection, radiation. Heat-exchanger principles. Prereq: ME 363 or equiv
Typically Offered: Fall, Spring, Summer

M E 368 Engineering Measurements and Instrumentation Credits: 4
Theory of modern instrumentation, the design and execution of experiments and the analysis of experimental data. Laboratory provides direct experience with concepts in the context of experimental design for hypothesis testing, for product evaluation and for control system design. Prereq: ME 340, 361 & ECE 376
Typically Offered: Fall, Spring

M E 370 Energy Systems Laboratory Credits: 3
Experimental evaluation and analysis of performance of various energy conversion systems such as turbines, compressors, refrigerators, fans, and internal combustion engines. Prereq: ME 363, 368, & EPD 397
Typically Offered: Fall, Spring, Summer

M E 379 Mechanical Dissection Credits: 1
Laboratory examination of the design of pumps, turbines, engines, heat-exchangers, household appliances, and other mechanical equipment. Operational design materials, manufacturing, failure and marketing considerations. Prereq: Sr st in mech engr or cons inst
Typically Offered: Fall, Spring

M E 415 Biomechanics of Human Movement Credits: 3
An overview of experimental and modeling techniques used to study human movement. Specific topics will include locomotion, motion capture systems, force plates, muscle mechanics, musculoskeletal modeling, three dimensional kinematics, inverse dynamics, forward dynamic simulation and imaging based biomechanics. Homework and laboratory activities will be conducted that emphasize applications of movement biomechanics in orthopedics and rehabilitation. The course will culminate in a class project related to each student's research interests. Prereq: Senior or graduate standing, ME 240, ME 340, BME 315
Typically Offered: Fall
M E 417 Introduction to Polymer Processing Credits: 3
Description of the physical, thermal, mechanical, and rheological properties of polymeric materials relevant to their processing behavior. Review of the basic transport phenomena equations: mass, momentum, and energy. Analysis of various processing operations for the manufacture of polymeric articles, with particular emphasis on: extrusion, injection molding, blow molding, thermoforming, and compression molding. Discussion of plastics recycling issues. Prereq: Sr st or cons inst
Typically Offered: Fall, Spring, Summer

M E 418 Engineering Design with Polymers Credits: 3
Implications for plastics part design of polymer classification, structure, melt rheology, mixing, polymer blends, anisotropy, solidification, mechanical behavior, failure. Plastics design for electrical, optical, acoustic and barrier properties. Prereq: Sr st or cons inst
Typically Offered: Fall, Spring, Summer

M E 419 Fundamentals of Injection Molding Credits: 3
All major aspects of injection molding with emphases on design, processing, process physics, computer-aided engineering (CAE), troubleshooting, and advanced molding processes. Field trip, video presentation, case studies, term project with oral presentation, and hands-on sessions using commercial CAE simulation software. Prereq: Sr or Grad st
Typically Offered: Occasionally

M E 420 Introduction to Polymer Composites Processing Credits: 3
A brief description of the physical, thermal, rheological and mechanical properties of composite materials. Apply fundamental transport phenomena concepts to solve problems dealing with flow through porous media, fiber orientation, curing reactions, shrinkage and warpage and mechanics of composites. Introduction of various processing operations for the manufacture of composites products, with particular emphasis on resin transfer molding, vacuum assisted resin infusion, injection and compression molding, filament winding, braiding and pultrusion. The course includes laboratory experiments, CAE applied to composites product design, and a final group project producing a composites product. Pr
Typically Offered: Spring, Summer

M E 424 Statistical Experimental Design Credits: 3
This course provides a systematic introduction to statistical design and analysis of experiments. Topics include: principles of randomization, blocking and replication, randomized blocking designs, Latin square designs, full factorial and fractional factorial designs and response surface methodology. Substantial focus will be devoted to engineering applications. Prereq: An introductory statistics course (Stat 224 or Stat 301 or Stat 302 or Stat 324 or Stat 371)
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

M E 425 Undergraduate Rheology Seminar Credits: 0 - 1
Rheology seminar course encouraged for all interested in professions related to polymers, suspensions or rheology; will not count toward credit requirement of the major. Prereq: Cons inst or Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

M E 429 Metal Cutting Credits: 3
Theory and applications of metal cutting; basic principles; significant features of current research. Chip formation mechanics, three-dimensional machining operations, tool life and machinability, economics of metal removal, and precision engineering. Prereq: Sr st in engr or cons inst
Typically Offered: Fall

M E 435 Joining of Materials: Structural, Electronic, Bio and Nano Materials Credits: 3
Typically Offered: Spring

M E 437 Advanced Welding Processes and Materials Selection Credits: 3
Analysis of industrial welding problems. Material and process description and selection. Corrosion control and fracture prevention, hydrogen damage, hot cracking, weld defects and prevention, automatic control of welding processes. Prereq: ME 313 or equiv or cons inst
Typically Offered: Occasionally
ME 439 Introduction to Robotics Credits: 3
A system engineering approach to robotic science and technology. Fundamentals of manipulators, sensors, actuators, end effectors and product design for automation. Kinematics, control, and programming of manipulators, along with introduction to pattern recognition and computer vision. Prereq: ME 340 or ECE 332 or equiv & familiarity with a high level programming language such as Pascal, C, or Matlab
Typically Offered: Spring

ME 440 Intermediate Vibrations Credits: 3
Harmonic motion; natural frequencies and vibration of damped and undamped single and multi-degree of freedom systems; modal analysis; influence coefficients; lumped-mass modeling; dynamic load factors; Rayleigh’s method; flow-induced vibrations; shaft whirl; balancing; vibration absorbers and tuned mass dampers; finite element modeling. Prereq: ME 306, ME 340
Typically Offered: Occasionally

ME 441 Rheology of Foods and Biomaterials Credits: 3
Fundamentals of rheology and rheological evaluations of food and biomaterials; structure-function relationships. Prereq: Physics 201 or CBE 320 or ME 363 or cons inst
Typically Offered: Spring

ME 444 Design Problems in Elasticity Credits: 3
Analysis of elastic systems by strain-energy techniques. Determination of stresses and deflections in statically indeterminate structures encountered in design. Resilience in springs. Prereq: ME 342 or cons inst
Typically Offered: Occasionally

ME 445 Mechatronics in Control & Product Realization Credits: 3
The course will cover fundamentals of electromechanical control systems with a focus on subsystem design impacts at the system level. Students will learn how to integrate microcontrollers into products for control and/or instrumentation and learn how to create intelligent interfaces. Motor & sensor interfaces. Control computer system architecture. Software and hardware principles for computer control. The following experience would be extremely advantageous to have coming in but in not assumed: Experience designing/fabricating/debugging digital circuits and active/passive analog circuits. Experience in any function based programming language (Matlab/Python/Java/C/C++). Exp
Typically Offered: Fall

ME 446 Automatic Controls Credits: 3
Sequencing control. Theory of linear feedback control systems with illustrative examples taken from applications encountered by mechanical engineers; differential equations for defining dynamic system response, Laplace transforms, and transient and frequency response concepts. Prereq: ME 340 or cons inst
Typically Offered: Fall

ME 447 Computer Control of Machines and Processes Credits: 3
Discrete control theory reduced to engineering practice through a comprehensive study of discrete system modeling, system identification and digital controller design. Selected industrial processes and machines utilized as subjects on which computer control is to be implemented. Focus: computer control economics and planning as well as the control theory and programming. Prereq: ME 340 or equiv or cons inst
Typically Offered: Spring

ME 448 Mechanical Systems Analysis Credits: 3
Integrated treatment of mathematical modeling and analysis of mechanical systems. Modeling of linear and nonlinear systems and their performance under transient, periodic and random loads. Prereq: Sr or Grad st in engr or phys sci
Typically Offered: Occasionally

ME 449 Redesign and Prototype Fabrication Credits: 3
The focal point of all lectures and labs is a semester long project. Lectures cover principals of design, manufacturing and prototype evaluation. Students will perform a re-design of a thermo-mechanical device using knowledge/skills acquired both through this course and previous course offerings in thermal sciences, mechanics and dynamics, manufacturing, and design. The lab component provides students with instruction and hands-on experience using the manufacturing tools/processes available in the College of Engineering. In addition, during the lab the students will apply the concepts of the lectures to the fabrication of the semester project. Each student constructs his or her own device du
Typically Offered: Spring
**M E 450 Design and Dynamics of Vehicles** Credits: 3  
Dynamic modelling of vehicles, tire mechanics, suspension kinematics, vehicle stability, vehicle structural design criteria, vehicle vibrations and ride criteria, design considerations for vehicles. Prereq: ME 340 or equiv, Comp Sci 310 or equiv, or cons inst  
Typically Offered: Occasionally

**M E 451 Kinematics and Dynamics of Machine Systems** Credits: 3  
Graphical, analytical, and computer methods for the kinematic and dynamic analysis of mechanical linkages, mechanisms, and geared and cam systems. Prereq: ME 240 or equivalent or consent of instructor  
Typically Offered: Fall

**M E 460 Applied Thermal / Structural Finite Element Analysis** Credits: 3  
The course is designed for undergraduate students with no finite element (FE) analysis experience or knowledge. By the end of the semester the student will be able to simulate 1D, 2D and 3D structural and thermal systems, including both the static and transient response, using a common, commercially available FE software package. Analyses will be performed using both GUI and APDL. The emphasis of the course is on becoming proficient with the software and capable of operating an FE package at a high level, including benchmarking and verifying the FE model using simple analytical checks. An additional emphasis of the course is on understanding the impact of the temperature distribution in an o  
Typically Offered: Spring

**M E 461 Thermal Systems Modeling** Credits: 3  
Analysis and design of engineering systems involving applications of thermodynamics, economics, heat transfer, and fluid flow. Prereq: ME 364 or equiv or cons inst  
Typically Offered: Occasionally

**M E 462 Welding Metallurgy** Credits: 3  
Metallurgical principles applied to welding; mechanisms of strengthening, phase equilibria, and microstructure of the weld zone. Modern processes including laser and electron beam welding. Prereq: MS&E 370 or ME 313 and MS&E 350 or cons inst  
Typically Offered: Occasionally

**M E 466 Air Pollution Effects, Measurements and Control** Credits: 3  
Overview of human health and environmental effects, and legislation regarding air pollution. Atmospheric transport and transformation of air pollutants. Emissions of air pollutants from power plants, transportation and industrial sources. Control technology for particulate and gaseous emissions. Monitoring and measurement of air pollutants. Application to boilers, engines, industrial processes and solid waste-to-energy technology. Prereq: Senior standing in engr or consent of instructor  
Typically Offered: Spring

**M E 469 Internal Combustion Engines** Credits: 3  
Fundamental principles of engine operation and application including cycle analysis, gas analysis, effect of operating conditions and engine design on air pollution. Prereq: ME 361 or cons inst  
Typically Offered: Fall

**M E 475 Engineering Principles of Agricultural Machinery** Credits: 3  
Engineering design principles of machines for the production, processing and handling of crops for food, fuel, biomass and fiber. Environmental and biological factors that influence machine design and operation. Economic and capacity analysis of machines and systems. Prereq: Declared in Biological Systems Engineering or Mechanical Engineering and EMA 202 or ME 240 or graduate standing  
Typically Offered: Fall

**M E 476 Engineering Principles of Off-Road Vehicles** Credits: 3  
Engineering design principles of heavy-duty vehicles intended for off-road use: fuels, engine cycles, engine principles and construction, clutches, mechanical and hydrostatic transmissions, final drives, traction systems, traction modeling, dynamic behavior, suspension systems and braking. Prereq: Declared in Biological Systems Engineering or Mechanical Engineering and ME 361, EMA 202 or ME 240; or graduate standing  
Typically Offered: Spring
M E 489 Honors in Research Credits: 1 - 3
Undergraduate honors research projects supervised by faculty members. Prereq: Admission to mech engr honors in research prgm
Typically Offered: Fall, Spring, Summer

M E 491 Mechanical Engineering Projects I Credits: 1 - 3
Individual lab projects under staff supervision. Prereq: Dept approval
Typically Offered: Fall, Spring, Summer

M E 492 Mechanical Engineering Projects II Credits: 1 - 3
Continuation of 491
Typically Offered: Fall, Spring, Summer

M E 508 Composite Materials Credits: 3
Physical properties and mechanical behavior of polymer, metal, ceramic, cementitious, cellulosic and biological composite systems; micro- and macro-mechanics; lamination and strength analyses; static and transient loading; fabrication; recycling; design; analytical-experimental correlation; applications. Prereq: ME 342 or ME 444 or ME/EMA 570 or EMA 506 or cons inst
Typically Offered: Spring

M E 510 Facilities Planning Credits: 3
Introduction to plant location theory and analysis of models of plant location; models for determining plant size and time phasing; line balancing models; techniques for investigating conveyor and other material handling problems; and models of plant layout. Prereq: IE 315, 323, 349 or cons inst
Typically Offered: Fall

M E 512 Inspection, Quality Control and Reliability Credits: 3
Inspection data for quality control; sampling plans for acceptance inspection; charts for process control. Introduction to reliability models and acceptance testing. Prereq: Stat 224
Typically Offered: Spring

M E 513 Analysis of Capital Investments Credits: 3
A second course in quantitative methods for analyzing capital investments in technological environments, both public and private. Replacement models; comparison of alternative investment models; risk analysis; case studies. Prereq: Ind Engr 313, Ind Engr 323, Stat 311
Typically Offered: Fall

M E 514 Additive Manufacturing Credits: 3
Rapid prototyping (RP) has emerged as a popular manufacturing technology to accelerate product creation. This novel manufacturing technology enables the building of parts that have traditionally been impossible to fabricate because of their complex shapes and the variety in materials. Prereq: ME 313 or consent of instructor
Typically Offered: Fall

M E 520 Two-Phase Flow and Heat Transfer Credits: 3
Two-phase flow and heat transfer in engineering systems. Pool boiling and flow boiling. Phenomenological modeling. Prereq: ME 361 or Ch E 310 or equiv, Ch E 320 or ME 364 or equiv
Typically Offered: Spring

M E 525 Macromolecular Hydrodynamics Credits: 3
Observed phenomena in polymeric flow systems. Techniques of viscometry and viscoelastic measurements for polymeric fluids. Rheological models. Analytical solutions to flow problems: non-Newtonian viscosity, linear viscoelasticity, normal stresses, recoil, stress relaxation, etc. Dimensional analysis. Unit operations of the polymer industry: extrusion, blow molding, injection molding, mixing. Prereq: CBE 320 or ME 363 or equivalent or consent of instructor
Typically Offered: Occasionally

M E 532 Theory and Applications of Pattern Recognition Credits: 3
Pattern recognition systems and components; decision theories and classification; discriminant functions; supervised and unsupervised training; clustering; feature extraction and dimensional reduction; sequential and hierarchical classification; applications of training, feature extraction, and decision rules to engineering problems. Prereq: ECE 331 or Math 431 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
M E 535 Computer-Aided Geometric Design Credits: 3
This course is designed to acquaint the student with computer-aided design technology used for geometric design of mechanical product. Currently used methods of creating three-dimensional computer-aided design (CAD) models will be discussed. The papadigms of three-dimensional wire-frame modeling, surface modeling and solids modeling as applied in product design will be taught. The course will be project oriented and will emphasize building and querying CAD models. Prereq: ME 232 or equiv, program background & Sr or Grad st, or cons inst
Typically Offered: Fall

M E 539 Introduction to Artificial Neural Network and Fuzzy Systems Credits: 3
Theory and applications of artificial neural networks and fuzzy logic: multi-layer perceptron, self-organization map, radial basis network, Hopfield network, recurrent network, fuzzy set theory, fuzzy logic control, adaptive fuzzy neural network, genetic algorithm, and evolutionary computing. Applications to control, pattern recognition, nonlinear system modeling, speech and image processing. Prereq: Comp Sci 302, or Comp Sci 310, or knowledge of C programming lang
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M E 540 Experimental Vibration and Dynamic System Analysis Credits: 3
Application of digital data acquisition to the investigation of mechanical components, structures and systems using time histories, transforms and response functions to characterize free, forced and transient inputs. Introduction to sensors, instrumentation and methods appropriate for dynamic system response. Prereq: ME 340 or ME 440 or EMA 545 or cons inst
Typically Offered: Spring

M E 545 Fluid Power Credits: 3
Generation, transmission, and utilization of power in systems in which the working fluid is oil or air; analysis and evaluation of pumps, motors, valves, and other fluid components; dynamic analysis and control of fluid power systems. Prereq: ME 340 or equiv or cons inst
Typically Offered: Spring

M E 549 Product Design Credits: 3
A project oriented, interdisciplinary course with an emphasis on designing competitive, quality products. The product development process is covered from problem identification through detail design and evaluation. Included among the topics covered are: idea generation and evaluation, visualization, and quality. Prereq: Sr or Grad st in engr or Grad st in other college or cons inst
Typically Offered: Fall

M E 558 Introduction to Computational Geometry Credits: 3
Introduction to fundamental geometric computations and algorithms, and their use for solving engineering and scientific problems. Computer representations of simple geometric objects and paradigms for algorithm design. Applications from areas of engineering analysis, design and manufacturing, biology, statistics, and other sciences. Prereq: Comp Sci 367 or equiv, Math 223 or equiv, or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M E 561 Intermediate Thermodynamics Credits: 3
Fundamentals; phase and chemical equilibria; availability; thermodynamic relationships. Prereq: ME 364 or equivalent or consent of instructor
Typically Offered: Fall

M E 563 Intermediate Fluid Dynamics Credits: 3
Incompressible and compressible, laminar and turbulent flow of fluids. Classical and finite-difference analysis using differential and integral formulation of the continuity, momentum and energy equations. Application to ducts, plates, spheres, blades, pumps, turbines, lubrication, shockwaves, nozzles, diffusers and other mechanical engineering equipment. Prereq: ME 363 or cons inst
Typically Offered: Spring

M E 564 Heat Transfer Credits: 3
Applications of conduction, convection, and thermal-radiation principles to combined-mode problems; analytical and numerical techniques; heat-exchanger design; thermal stresses. Prereq: ME 364 or equiv or cons inst
Typically Offered: Spring
M E 565 Power Plant Technology Credits: 3
Design and performance of power plants for the generation of electric power; fossil and nuclear fuels, cycle analysis, component design and performance, plant operation, control, economics and environmental impact. Advanced concepts. Prereq: ME 361 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M E 566 Cryogenics Credits: 3
Applications of cryogenics, material properties at low temperatures, refrigeration and liquefaction systems, measurement techniques, insulation, storage and transfer of cryogenics, safety and handling. Prereq: ME 361 or Physics 415, ChE 320 or ME 364
Typically Offered: Occasionally

M E 567 Solar Energy Technology Credits: 3
Radiant energy transfer and its application to solar exchangers; energy balances for solar exchangers, review of theory, economics, and practice of solar energy applications. Prereq: ME 364 or CBE 326 or consent of instructor
Typically Offered: Fall

M E 569 Applied Combustion Credits: 3
Introduction to and analysis of combustion processes and combustion technology for gaseous, liquid, and solid fuels. Application to combustion engines, furnaces, fixed-bed, fluidized-bed, and suspension burning boilers. Prereq: ME 364 or equiv
Typically Offered: Fall

M E 570 Experimental Mechanics Credits: 3
Experimental methods for design and analysis of mechanical components, structures and materials. Electrically and optically recorded stress, strain and deformation data; computer acquisition/reduction/presentation techniques; applications to static and transient events, sensors, transducer design, NDT, fracture and residual stresses. Prereq: ME 306 or EMA 214 or 303 or 304 or cons inst
Typically Offered: Fall

M E 572 Intermediate Gas Dynamics Credits: 3
Thermodynamics and fluid dynamics of compressible gas flows with friction and heat transfer, and application to nozzles, shock tubes and propulsion devices. Wave phenomena and engine port tuning. Physics of high temperature gases and equilibrium, non-equilibrium and frozen flows. Prereq: ME 363 or equiv or cons inst
Typically Offered: Fall, Spring

M E 573 Computational Fluid Dynamics Credits: 3
Course provides an in-depth introduction to the methods and analysis techniques used in computational solutions of fluid mechanics and heat transfer problems. Model problems are used to study the interaction of physical processes and numerical techniques. Contemporary methods for boundary layers, incompressible viscous flows, and inviscid compressible flows are studied. Finite differences and finite volume techniques are emphasized. Prereq: ME 363, Comp Sci 310 or 412 or cons inst
Typically Offered: Fall, Spring

M E 577 Automatic Controls Laboratory Credits: 4
Control theory is reduced to engineering practice through the analysis and design of actual systems in the laboratory. Experiments are conducted with modern servo systems using both analog and digital control. Systems identification and modern controls design are applied to motion and torque control. Prereq: ME 446 & 447 or ECE 332 & 416 or cons inst
Typically Offered: Spring

M E 601 Special Topics in Mechanical Engineering Credits: 1 - 3
Such as vibrations, balancing, lubrication and wear, special manufacturing processes, automation, energy systems, etc. Prereq: Senior standing & consent of instructor
Typically Offered: Fall, Spring, Summer

M E 603 Topics in Bio-Medical Engineering Credits: 1 - 3
Various aspects of living systems of interest to the mechanical engineer, such as the mechanics of hearing and vision, cardiac and central nervous systems, artificial organs, blood flow behavior, and energy-transfer processes. Prereq: Consent of instructor
Typically Offered: Occasionally
**M E 641 Design and Analysis of Manufacturing Systems** Credits: 3
Covers a broad range of techniques and tools relevant to the design, analysis, development, implementation, operation and control of modern manufacturing systems. Case studies assignments using industry data will be used to elaborate the practical applications of the theoretical concepts. This course also serves as a capstone course for the MSMSE degree. Prereq: Grads: MSE major or consent of instructor; Undergrads: IE 315 or 605, & consent of instructor
Typically Offered: Spring

**M E 643 Performance Analysis of Manufacturing Systems** Credits: 3
This course examines the state of the art in the use of stochastic network theory to develop performance models of modern manufacturing systems. Prereq: ISyE 624 or ISyE 632, Comp Sci 302 or Comp Sci 367 or Graduate standing
Typically Offered: Occasionally

**M E 699 Advanced Independent Study** Credits: 1 - 3
Prereq: Approval of Mech Engr dept comm
L&S Level: Advanced L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**M E 702 Graduate Cooperative Education Program** Credits: 1 - 2
Work experience that combines classroom theory with practical knowledge of operations to provide students with a background on which to develop and enhance a professional career. The work experience is tailored for MS students from within the U.S. as well as eligible international students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

**M E 706 Plates, Shells and Pressure Vessels** Credits: 3
Stress and deflection analysis of structural plates and membranes under mechanical and thermal loads; variational and numerical methods; instability and vibrations; membrane shell theory; cylindrical shells; pressure vessel and piping design applications; ASME Pressure Vessel Code. Prereq: ME 444 or EMA 506 or cons inst
Typically Offered: Occasionally

**M E 708 Advanced Composite Materials** Credits: 3
Contemporary topics such as new materials; smart materials/structures/systems; fatigue; fracture; experimental techniques; nondestructive evaluation; transient, micro, three-dimensional, nonlinear, inelastic and environmental effects; manufacturing methods: repair and applications. Prereq: ME/EMA 508 or cons inst
Typically Offered: Occasionally

**M E 714 Advanced Materials Processing and Manufacturing** Credits: 3
Discusses the systematic integration of processing-material-performance relationships in various advanced materials processing and manufacturing processes. Prereq: ME 313 or cons inst
Typically Offered: Occasionally

**M E 717 Advanced Polymer Processing** Credits: 3
Advanced analysis and modeling of plastics extrusion, injection molding, and other processes; mold and equipment design; materials consideration. Prereq: ME 417 or equiv or cons inst
Typically Offered: Occasionally

**M E 718 Modeling and Simulation in Polymer Processing** Credits: 3
This course is designed to acquaint the student with computer simulation technology used for the engineering of polymer processes. Prereq: ME 417 or equiv or cons inst
Typically Offered: Occasionally

**M E 722 Introduction to Polymer Rheology** Credits: 3
Formulation of constitutive equations using embedded base vectors. Viscosity, normal stress differences, stress relaxation, elastic recoil. Polymer rheology; homogeneous strain history. Prereq: Math 320 or cons inst
Typically Offered: Occasionally
M E 739 Advanced Robotics Credits: 3
In-depth study of advanced robotics modeling and control. Topics include kinematics, motion planning, dynamics and control of serial chain robotic manipulators. Concepts are explored through a combination of theoretical and numerical modeling techniques. Prereq: ME 446 or ECE 332 or equiv; Math 320 or 340; Familiarity with high level computational programming language such as Matlab, or consent of instructor
Typically Offered: Occasionally

M E 740 Advanced Vibrations Credits: 3
Vibration of mechanical components subject to dynamic loads; analytical, numerical and finite element methods applied to the analysis and design of mechanical systems consisting of cables, bars, shafts, beams, frames, rings, membranes, plates and shells. Prereq: ME 440 or cons inst
Typically Offered: Occasionally

M E 746 Dynamics of Controlled Systems Credits: 3
Emphasis on obtaining equations which define the behavior of physical systems frequently subjected to control; mechanical processing, fluid power, and thermal systems; analytical, experimental, and computer techniques. Prereq: ME 446 & 447, or cons inst
Typically Offered: Occasionally

M E 747 Advanced Computer Control of Machines and Processes Credits: 3
Digital control theory, design methodology, and techniques for controller implementation on digital computers. Advanced single and multi-axis motion generation algorithms. Multiple processor control systems. Multiple objective control systems for machinery guidance and manufacturing processes. Precision control. Prereq: ME 446 & 447, or ECE 516, or cons inst
Typically Offered: Occasionally

M E 748 Optimum Design of Mechanical Elements and Systems Credits: 3
Formulation and solution of mechanical design problems by use of mathematical programming methods. Prereq: Cons inst
Typically Offered: Occasionally

M E 751 Matrix Methods in the Design and Analysis of Mechanisms Credits: 3
Typically Offered: Occasionally

M E 753 Friction, Lubrication and Wear Credits: 3
Behavior of frictional surfaces under different types of loading. Mechanisms of heat generation and surface damage (wear, scuffing, pitting, fretting, etc.). Rheological effects. Effect of lubrication. Surface interaction in metal cutting. Design considerations. Prereq: Cons inst
Typically Offered: Occasionally

M E 758 Solid Modeling Credits: 3
Mathematical modeling, computer representations, and algorithms for manipulation of two- and three-dimensional solid objects on a computer. Applications of solid modeling to design, representation, and analysis of mechanical parts and processes; other engineering and scientific applications of solid modeling. Prereq: Comp Sci 367 or equiv, Math 340 or equiv, or cons inst
Typically Offered: Occasionally

M E 759 High Performance Computing for Applications in Engineering Credits: 3
An overview of hardware and software solutions that enable the use of advanced computing in tackling computationally intensive Engineering problems. Hands-on learning promoted through programming assignments that leverage emerging hardware architectures and use parallel computing programming languages. Prereq: COMP SCI 302 or COMP SCI 368
Typically Offered: Fall

M E 761 Topics in Thermodynamics Credits: 3
Thermostatic behavior of nonideal gases; equations of state, with emphasis on their empirical and statistical development, including mixture rules; more detailed study of chemical and phase equilibrium; selected applications of the foregoing; real gas processes, combustion, direct energy conversion devices. Prereq: ME 561 or cons inst
Typically Offered: Occasionally
M E 764 Advanced Heat Transfer I-Conduction Credits: 3
Analytical methods in conduction; Bessel functions, separation of variables, Laplace transforms, superposition, oscillating solutions; computer methods; finite differences, finite elements. Prereq: ME 564 or cons inst
Typically Offered: Occasionally

M E 765 Advanced Heat Transfer II-Convection Credits: 3
Convection and mass-transfer principles, including boundary-layer phenomena in laminar and turbulent flow; internal flows; heat transfer in high-velocity flow, numerical methods. Prereq: ME 564 or cons inst
Typically Offered: Occasionally

M E 769 Combustion Processes Credits: 3
Combustion theory and practice. Thermodynamics of combustion, flame theory, detonation, spray and droplet combustion related to various engine applications. Prereq: ME 561 or cons inst
Typically Offered: Occasionally

M E 770 Advanced Experimental Instrumentation Credits: 3
Theory and design of instruments for transient physical phenomena especially related to internal combustion engines. Prereq: Cons inst & basic electron course
Typically Offered: Occasionally

M E 773 Boundary Layer Theory Credits: 3
Concepts of laminar and turbulent flow. Boundary-layer approximations. Similarity and integral methods of solution. Internal flows, flow over surfaces, jets, rotating elements, and the effects of compressibility. Prereq: ME 563 or Ch E 320 or equiv or cons inst
Typically Offered: Occasionally

M E 774 Chem Kinetics of Combust Systems Credits: 3
Application of gas-phase chemical reaction rate theory to power and propulsion systems, both earthbound and airborne. Aerothermochemistry, kinetics of combustion reactions, kinetics related to air pollutant generation. Development and comparison of transition state theory, collision theory and bond-energy-bond-order method. Prereq: Cons inst
Typically Offered: Occasionally

M E 775 Turbulent Heat and Momentum Transfer Credits: 3
Stochastic methods in turbulent heat and momentum transfer; fully developed turbulence; numerical methods including model applications to boundary layers, reacting flows, mass transfer, and unsteady flows; linear and non-linear stability and transition; emphasis on applications of interest to Mechanical Engineers. Prereq: ME 563 or equiv
Typically Offered: Occasionally

M E 777 Vacuum Technology Credits: 3
Topics defining modern vacuum technology, including the kinetic theory of gases, conductance, pumping systems, pump technologies, pressure measurement, gas-surface interactions, sealing technologies, leak detection, and residual gas analysis will be addressed through a combination of lectures, laboratory activities, problem solving, and group discussions. Prereq: ME 363 and CBE/BME 320
Typically Offered: Occasionally

M E 790 Master's Research and Thesis Credits: 1 - 9
Prereq: Grad st; Master's candidates only
Typically Offered: Occasionally

M E 825 Molecular Network Theories for Polymeric Materials Credits: 3
Typically Offered: Occasionally

M E 890 PhD Research and Thesis Credits: 1 - 9
Prereq: Grad st, for post-master's PhD candidates who have not attained dissertator status
Typically Offered: Occasionally
**M E 903 Graduate Seminar** Credits: 0  
Prereq: Cons inst  
Typically Offered: Occasionally

**M E 925 Rheology Research Seminar** Credits: 0 - 1  
Exploration of the most recent research literature on viscoelasticity, constitutive equations, non-Newtonian flow systems, fluid metering devices, kinetic theory of macromolecules, and rheooptical phenomena. Periodic reports on recent advances made by research workers in the various rheology groups on the Madison campus. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

**M E 964 Special Advanced Topics in Mechanical Engineering** Credits: 1 - 3  
Advanced topics in design, manufacturing, energy, etc. Prereq: Cons inst  
Typically Offered: Occasionally

**M E 990 Dissertator Research and Thesis** Credits: 1 - 9  
Prereq: Dissertator status  
Typically Offered: Occasionally

**M E 999 Advanced Independent Study** Credits: 1 - 5  
Prereq: Dept approval  
Typically Offered: Occasionally

**NUCLEAR ENGINEERING**

**N E 1 Cooperative Education Program** Credits: 1  
Work experience which combines classroom theory with practical knowledge of operations to provide students with a background upon which to base a professional career. Prereq: So st  
Typically Offered: Occasionally

**N E 231 Survey of Nuclear Engineering** Credits: 1  
Consideration of work done by nuclear engineers; relevance of nuclear energy to society; environmental and other problems. Open to all students. Offered on a pass-fail basis only. Prereq: Open to Freshmen  
Typically Offered: Spring

**N E 234 Principles and Practice of Nuclear Reactor Operations** Credits: 4  
This course presents the theoretical and practical information required to understand operation of nuclear reactors. The course content includes all subjects which must be known by a person seeking an operating license for the university reactor. Instructors integrate information on similar operations and systems in a nuclear power plant. Prereq: Consent of instructor. Open to Freshmen  
Typically Offered: Fall

**N E 305 Fundamentals of Nuclear Engineering** Credits: 3  
Properties of nuclei, nuclear structure, radioactivity, nuclear reactions, fission, resonance reactions, moderation of neutrons. Prereq: PHYSICS 241 or declared in a Civil and Environmental Engineering, Nuclear Engineering and Engineering Physics, Electrical Engineering, Mechanical Engineering or Physics graduate program  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

**N E 373 Nuclear Energy and the Environment** Credits: 3  
Fission and fusion processes, nuclear reactors, power plants, radioactivity, biological effects, radiation and thermal releases, governmental regulations' impact on society. Prereq: HS physics or chem; knowledge of basic biology or consent of instructor; not open to NEEP stdts  
L&S Breadth: Natural Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

**N E 405 Nuclear Reactor Theory** Credits: 3  
The neutronics behavior of fission reactors, primarily from a theoretical, one-speed perspective. Criticality, fission product poisoning, reactivity control, reactor stability and introductory concepts in fuel management, followed by slowing down and one-speed diffusion theory. Prereq: N E 305, MATH 319 and MATH 320 or declared in a Civil and Environmental Engineering, Nuclear Engineering and Engineering Physics, Electrical Engineering, Mechanical Engineering or Physics graduate program  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring
NE 406 Nuclear Reactor Analysis Credits: 3
The neutronics behavior of fission reactors, both from a theoretical and computational multi-group perspective. Multi-group diffusion theory, finite-difference and nodal methods, core heterogeneous effects, pin power reconstruction, thermal neutron spectra, fine group whole spectrum calculations and coarse group constant generation. Prereq: NEEP 405
Typically Offered: Fall

NE 408 Ionizing Radiation Credits: 3
Sources, interactions, and detection of ionizing radiation. Biological effects, shielding, standards of radiation protection. Prereq: NE 305 or declared in a Civil and Environmental Engineering, Nuclear Engineering and Engineering Physics, Electrical Engineering, Mechanical Engineering or Physics graduate program
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NE 411 Nuclear Reactor Engineering Credits: 3
Reactor heat generation and removal; steady- and unsteady-state conduction in reactor elements; single phase, two-phase, and liquid metal cooling, core thermal design. Prereq: NE 305, ME 361, BME/CBE 320 or ME 364 or declared in a Civil and Environmental Engineering, Nuclear Engineering and Engineering Physics, Electrical Engineering, Mechanical Engineering or Physics graduate program
Typically Offered: Fall

NE 412 Nuclear Reactor Design Credits: 3 - 5
Reactor design projects, reactor hazards, economics. Prereq: NEEP 405, 411, Comp Sci 302 or NEEP 271
Typically Offered: Spring, Summer

NE 423 Nuclear Engineering Materials Credits: 3
Fundamentals of fuel and cladding behavior in terms of thermal properties, chemical behavior and radiation damage. Prereq: MS&E 350 or 351
Typically Offered: Occasionally

NE 424 Nuclear Materials Laboratory Credits: 1
Practical application of materials issues for nuclear systems including welding, non-destructive examination, optical microscopy, electron microscopy, to understand radiation damage and corrosion. Prereq: MS&E 350, NE 423 and/or NE 541 recommended
Typically Offered: Fall

NE 427 Nuclear Instrumentation Laboratory Credits: 2
Experiments on nuclear instrumentation, counting, data analysis. One three-hour lab, one lecture per week. Prereq: NE 305 or declared in a Civil and Environmental Engineering, Nuclear Engineering and Engineering Physics, Electrical Engineering, Mechanical Engineering or Physics graduate program
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

NE 428 Nuclear Reactor Laboratory Credits: 2
Experiments on reactor operation, flux measurement, measurements of reactor parameters, using pool type reactor. One three-hour lab per week. Prereq: NE 405 and NE 427 or declared in a Civil and Environmental Engineering, Nuclear Engineering and Engineering Physics, Electrical Engineering, Mechanical Engineering or Physics graduate program
Typically Offered: Fall, Spring

NE 433 Principles of Corrosion Credits: 3
Typically Offered: Occasionally

NE 460 Uncertainty Analysis for Engineers Credits: 3
This course introduces undergraduates to approaches for quantifying uncertainty in engineering analyses. Both analytical and computational methods are demonstrated. Prereq: Statistics 311, Math 431, or consent of instructor
Typically Offered: Fall
**NE 489 Honors in Research**  Credits: 1 - 3  
Undergraduate research and senior honors thesis in nuclear engineering. Prereq: Honors candidacy in nuclear engineering  
Typically Offered: Fall, Spring, Summer

**NE 506 Monte Carlo Radiation Transport**  Credits: 3  
Use of Monte Carlo technique for applications in nuclear engineering and medical physics. Major theory of Monte Carlo neutral particle transport is discussed. Standard Monte Carlo transport software is used for exercises and projects. Major emphasis is on analysis of real-world problems. Prereq: NEEP 305 or equiv and one of NEEP 405, 408, Med Phys 501 or 569, or consent of instructor  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**NE 520 Two-Phase Flow and Heat Transfer**  Credits: 3  
Two-phase flow and heat transfer in engineering systems. Pool boiling and flow boiling. Phenomenological modeling. Prereq: ME 361 or Ch E 310 or equiv, Ch E 320 or ME 364 or equiv  
Typically Offered: Spring

**NE 525 Introduction to Plasmas**  Credits: 3  
Basic description of plasmas: collective phenomena and sheaths, collisional processes, single particle motions, fluid models, equilibria, waves, electromagnetic properties, instabilities, and introduction to kinetic theory and nonlinear processes. Examples from fusion, astrophysical and materials processing processing plasmas. Prereq: One crse in electromagnetic fields beyond elem physics  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**NE 526 Laboratory Course in Plasmas**  Credits: 3  
Provides a background in the techniques for creating, exciting, and measuring the properties of lab plasmas and using the associated apparatus. Prereq: NEEP, Physics or ECE 525 or consent of instructor  
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**NE 527 Plasma Confinement and Heating**  Credits: 3  
Principles of magnetic confinement and heating of plasmas for controlled thermonuclear fusion: magnetic field structures, single particle orbits, equilibrium, stability, collisions, transport, heating, modeling and diagnostics. Discussion of current leading confinement concepts: tokamaks, tandem mirrors, stellators, reversed field pinches, etc. Prereq: NEEP/Phys/ECE 525 or equiv  
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

**NE 528 Plasma Processing and Technology**  Credits: 3  
Introduction to basic understanding and techniques. Plasma processing of materials for semiconductors, polymers, plasma spray coatings, ion implantation, etching, arcs, extractive metallurgy and welding. Plasma and materials diagnostics. Prereq: Physics 322 or ECE 320 or equiv or cons inst  
Typically Offered: Occasionally

**NE 536 Feasibility St of Power from Controlled Thermonuclear Fusion**  Credits: 3  
Introduction to the use and design of possible fusion reactors. Problems of the plasma confinement and energy density, neutronics of blanket design, and radiation damage. Prereq: NEEP 405, 411  
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

**NE 541 Radiation Damage in Metals**  Credits: 3  
A survey of the nature of point defects, how these defects are produced, how the defects migrate and cluster, and what effects point defects and defect clusters have on the physical and mechanical properties of metals. Prereq: MS&E 350 or 351  
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**NE 550 Advanced Nuclear Power Engineering**  Credits: 3  
Analysis of nuclear systems for the production of useful power. Emphasis: thermodynamic cycles, reactor types, coupling of reactor and power plant, design synthesis, and plant economics. Prereq: NEEP 405 and 411  
Typically Offered: Fall

**NE 555 Nuclear Reactor Dynamics**  Credits: 3  
Basic equations and physical parameters of point reactor kinetics without feedback effects; the nuclear reactor as a total system; reactor excursions, Fuchs-Nordheim and Bethe-Tait models; space-time reactor dynamics; synthesis methods. Prereq: NEEP 405  
Typically Offered: Occasionally
**N E 565 Power Plant Technology** Credits: 3
Design and performance of power plants for the generation of electric power; fossil and nuclear fuels, cycle analysis, component design and performance, plant operation, control, economics and environmental impact. Advanced concepts. Prereq: ME 361 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**N E 569 Health Physics and Biological Effects** Credits: 3 - 4
Physical and biological aspects of the use of ionizing radiation in industrial and academic institutions; physical principles underlying shielding instrumentation, waste disposal; biological effects of low levels of ionizing radiation; lecture and lab. Prereq: Consent of instructor
Typically Offered: Spring

**N E 571 Economic and Environmental Aspects of Nuclear Energy** Credits: 3
Economics of the nuclear fuel cycle. Economic and environmental impact the nuclear fuel cycle. Impact on design, plant siting and regulation. Prereq: NEEP 405 & NEEP 411
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**N E 574 Methods for Probabilistic Risk Analysis of Nuclear Power Plants** Credits: 3
Methods for risk and reliability analysis of engineered systems, particularly as applied in the nuclear power industry. Fault trees and event trees, Bayesian data analysis, probabilistic risk management. Some familiarity with nuclear plant safety systems is helpful, but not required. Prereq: Stat 224
Typically Offered: Occasionally

**N E 602 Special Topics in Reactor Engineering** Credits: 0 - 3
Typically Offered: Fall, Spring

**N E 699 Advanced Independent Study** Credits: 0 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**N E 705 Advanced Reactor Theory** Credits: 3
Typically Offered: Occasionally

**N E 708 Societal Risk Management of Technological Hazards** Credits: 3
Issues involved in decision-making regarding technological risks and risk management in areas such as nuclear power, hazardous waste disposal, and pollution control. Risk perception and cognitive biases; risk analysis and decision analysis; political issues in risk management; regulatory mechanisms; and risk communication. Selected case studies. Prereq: Stat 311 or Math 431 or Soc 360, IE 516, & Grad st; or cons inst
Typically Offered: Occasionally

**N E 724 Waves and Instabilities in Plasmas** Credits: 3
Waves in a cold plasma, wave-plasma interactions, waves in a hot plasma, Landau damping, cyclotron damping, magneto-hydrodynamic equilibria and instabilities, microinstabilities, introduction to nonlinear processes, and experimental applications. Prereq: NEEP/ECE/Physics 525 & Physics 721 or ECE 740 or cons inst
Typically Offered: Occasionally

**N E 725 Plasma Kinetic Theory and Radiation Processes** Credits: 3
Coulomb Collisions, Boltzmann equation, Fokker-Planck methods, dynamical friction, neoclassical diffusion, collision operators radiation processes and experimental applications. Prereq: Physics, ECE, NEEP 525 & Physics 721 or ECE 740 or cons inst
Typically Offered: Occasionally

**N E 726 Plasma Magnetohydrodynamics** Credits: 3
MHD equations and validity in hot plasmas; magnetic structure and magnetic flux coordinates; equilibrium in various configurations; stability formulation, energy principle, classification of instabilities; ideal and resistive instability in various configurations, evolution of nonlinear tearing modes; force-free equilibria, helicity, MHD dynamo; experimental applications. Prereq: NEEP/ECE/Physics 525 & Physics 721 or ECE 740 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
N E 741 Interaction of Radiation with Matter Credits: 3
Review of topics in electrodynamics and special relativity; ionization and energy loss during scattering of charged particles; radiation from charged particles including Bremsstrahlung, Cerenkov, and Synchrotron radiation; Thomson scattering of electromagnetic waves by charged particles. Prereq: Engr Mech 202 or Phys 311; Phys 322
Typically Offered: Occasionally

N E 742 Interaction of Radiation with Matter Credits: 3
Quantum mechanical elastic and inelastic scattering; partial wave analysis, Born approximation, compound nucleus and Breit-Wigner formula, elastic and inelastic collisions between fast electrons and atoms, miscellaneous topics and applications to neutron scattering. Prereq: Physics 449 or 531
Typically Offered: Occasionally

N E 749 Coherent Generation and Particle Beams Credits: 3
Fundamental theory and recent advances in coherent radiation charged particle beam sources (microwave to X-ray wavelengths) including free electron lasers, wiggler/wave-particle dynamics, Cerenkov masers, gyrotrons, coherent gain and efficiency, spontaneous emission, beam sources and quality, related accelerator concepts experimental results and applications. Prereq: ECE 740 or Physics 721, or equiv, or cons inst
Typically Offered: Occasionally

N E 790 Master's Research and Thesis Credits: 1 - 9
Prereq: Grad st; Master's candidates only
Typically Offered: Occasionally

N E 890 Pre-Dissertator's Research Credits: 1 - 9
Research by the Ph.D. students prior to becoming dissertators. Prereq: Grad st; pre-dissertator
Typically Offered: Occasionally

N E 903 Special Topics-Plasma Physics Credits: 0 - 3
Prereq: NEEP or ECE or Physics 724 or cons inst
Typically Offered: Occasionally

N E 922 Seminar in Plasma Physics Credits: 0 - 1
Prereq: Graduate or professional standing
Typically Offered: Occasionally

N E 990 Research and Thesis Credits: 1 - 6
Prereq: Dissertator status
Typically Offered: Occasionally

N E 999 Advanced Independent Study Credits: 1 - 3
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

PROFESSIONAL ORIENTATION

PRO OR 200 Career Orientation Credits: 1
Career planning; consideration of types of work in engineering; interviewing procedures and effective use of placement services; opportunities, division of work, and requirement for engineers in many fields. Prereq: 2nd sem Jr st or Sr st or cons inst
Typically Offered: Spring
CSCS 125 Community and Social Change Credits: 3
This course examines contemporary issues with an emphasis on the role that individuals and communities play in achieving positive social change. Through active learning, students will develop the mindsets and communication skills necessary to work in diverse community contexts. Specific themes may shift based on current events, but often include education reform, racial justice, health equity, alternative economies, food systems, and sustainability. Prereq: None
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

CSCS 130 Community Newswriting Credits: 3
Newswriting of interest to individuals, families, and communities. Prereq: Sophomore standing
General Education: COM B Typically Offered: Spring

CSCS 299 Independent Study Credits: 1 - 3
Directed study projects for freshmen and sophomores as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

CSCS 300 Nonprofit Sector: Overview and Foundations Credits: 3
Provide learners with the concepts and tools to analyze the broad environment in which nonprofits operate and assess the impact of this environment at the community and individual organizational level. Prereq: None
Typically Offered: Fall, Spring

CSCS 301 Coordinative Internship/Cooperative Education Credits: 1 - 6
Enables students with supervised internships to earn academic credit while engaged in a professional experience in community and nonprofit leadership related fields. Course is intended for juniors and seniors in Community and Nonprofit Leadership. Prereq: Consent of instructor
Typically Offered: Occasionally

CSCS 335 Communicating with Key Audiences Credits: 3
Comprehensive communication strategies for individuals, families, and communities. Prereq: Sophomore standing
Typically Offered: Fall

CSCS 345 Strategic Planning for Nonprofit Organizations Credits: 3
Study strategic planning within unique dynamics of nonprofit sector. Attention to purpose, organizational preparation, planning process and outcome, plan implementation and roles of leaders and stakeholders throughout. Prereq: Junior standing
Typically Offered: Fall, Spring

CSCS 350 Community Issues and Service Learning Credits: 3
Academic and community-based explorations of selected issues faced by contemporary families and consumers, approached from human ecological perspectives. Requires 25 hours of fieldwork in community settings, in addition to class sessions Prereq: Sophomore standing
Typically Offered: Fall, Spring

CSCS 375 Special Topics Credits: 1 - 4
Specialized subject matter of current interest to undergraduate students. Prereq: Prerequisites vary by topic
Typically Offered: Fall, Spring
CSCS 427 Methods of Teaching Family and Consumer Education Credits: 3
Theory and principles of teaching and learning in family and consumer education. Prereq: Junior standing
Typically Offered: Spring

CSCS 428 Program Planning in Family and Consumer Education Credits: 3
Theory and processes of program planning for formal and informal educational settings; relation of vocational
education to secondary, adult, and continuing education programs. Prereq: Junior standing
Typically Offered: Fall

CSCS 455 Entrepreneurialism and Society Credits: 3
Explores entrepreneurialism in nonprofits, business, government, and arts and humanities contexts. With a broad
approach of ideas, readings, and lectures, students will understand the ever-changing role that entrepreneurs
play and contribute to society. Prereq: Junior standing
Typically Offered: Occasionally

CSCS 460 Leadership and Management of Nonprofit Organizations Credits: 3
Survey of leadership and management roles and methods to achieve key organizational functions and enable
nonprofit organizations to fulfill their role in civil society. Prereq: Junior standing
Typically Offered: Fall, Spring

CSCS 501 Special Topics Credits: 1 - 3
Specialized subject matter of current interest to undergraduate and graduate students. Prereq: Prerequisites vary by topic
Typically Offered: Fall, Spring

CSCS 560 Community Leadership Credits: 3
Explores community building and community action strategies for renewing fragmented connections in today's
localities. Builds knowledge and skills for participation and leadership at team and multi-stakeholder community
levels in the context of nonprofit organization work. Requires 5 hours of service learning. Prereq: Junior
standing and CSCS 300
Typically Offered: Spring

CSCS 570 Community Based Research and Evaluation Credits: 3
Theoretical, critical, and analytical understanding and application of the conscious and systematic use of data,
inquiry and analysis for community, organization and program diagnosis, intervention and evaluation in various
community-based and nonprofit organizations. Prereq: Junior standing, Satisfied Quantitative Reasoning (QR)
A requirement and CSCS 300
Typically Offered: Spring

CSCS 601 Internship Credits: 1 - 6
Enables students with supervised internships to earn academic credit while engaged in a professional experience
in community and nonprofit leadership related fields. Course intended for juniors and seniors in Community and
Nonprofit Leadership. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

CSCS 675 General Topics Credits: 2 - 3
Specialized subject matter of current interest to graduate students. Prereq: Prerequisites vary by topic
Typically Offered: Occasionally

CSCS 681 Senior Honors Thesis Credits: 2 - 4
Individual study for seniors completing theses for Human Ecology honors degrees as arranged with a faculty
member. Prereq: Consent of instructor
Typically Offered: Fall, Spring

CSCS 691 Senior Thesis Credits: 2
Individual study for seniors completing theses as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring

CSCS 699 Independent Study Credits: 1 - 4
Directed study projects for juniors and seniors as arranged with a faculty member. Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
CSCS 801 Special Topics in Civil Society and Community Research Credits: 1 - 3
Special topics in Civil Society and Community Research at the Master's and Doctoral levels. Subject matter varies. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

CSCS 811 Seminar: Research Design and Methodology Credits: 1 - 3
For students actively involved in designing, analyzing, and writing up research projects or theses. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CSCS 990 Research and Thesis Credits: 1 - 12
Independent research and writing for graduate students under the supervision of a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

CSCS 999 Independent Study Credits: 1 - 3
Directed study projects for graduate students as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

CONSUMER SCIENCE

CNSR SCI 111 Financial Life Skills for Undergraduates Credits: 1
Applied personal finance course to provide undergraduates in their first two years of college (freshman and sophomores) the knowledge and tools needed to successfully manage personal finances during their college years. Topics include financial values and behaviors, credit and student loans, housing, transportation, financial services, and spending and saving plans. Prereq: Freshman or Sophomore standing only
Typically Offered: Fall, Spring

CNSR SCI 173 Consuming Happiness Credits: 3
As the saying goes, money can't buy happiness -- but in modern America, we certainly try. This course will provide an overview of the study of happiness and well-being, examine how consumers engage in consumption in pursuit of happiness, as well as explore the emergence of the experience economy, and the intersection of money and well-being. Students will read academic and popular pieces on positive psychology, prosocial spending and explore the psychology of persuasion in the promises associated with this industry. In addition to integrating visual media, students will have the opportunity to experience first-hand whether the advice works in their own lives. Prereq: None
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall

CNSR SCI 201 Consumer Research & Analysis Credits: 3
This course provides basic training in quantitative data analysis, with an emphasis on descriptive and inferential statistics with consumer research applications. Prereq: STAT 301, GEN BUS 303, SOC/C&E SOC 360 or GEOG 360
Typically Offered: Fall, Spring

CNSR SCI 250 Retail Leadership Symposium Credits: 1
Provides detailed examination of careers in the retailing industry. High level industry experts from leading companies in the retailing industry participate as guest speakers and panel members. Prereq: None
Typically Offered: Fall, Spring

CNSR SCI 251 Financial Services Leadership Symposium Credits: 1
Provides detailed examination of careers in the financial services industry. High level industry experts from leading companies in the financial services industry participate as guest speakers and panel members. Prereq: None
Typically Offered: Fall, Spring

CNSR SCI 255 Consumer Financial Services Innovation Credits: 3
This course allows students to experience the current financial services market from the perspective of real families and then to design, develop and evaluate innovative solutions to improve service or address unmet needs. Prereq: None
Typically Offered: Spring
CNSR SCI 257 Introduction to Retailing Credits: 2
Foundational knowledge of the retail industry including the retailing process, the evolution of the industry, key
drivers and trends to provide students with a framework and set of concepts that will support the remainder of the
core retail courses. Prereq: None
Typically Offered: Fall, Spring

CNSR SCI 273 Finances & Families Credits: 3
For the majority of Americans, money and family life is intertwined. This course will educate future financial
planners on the basics of relationship formation and dissolution, gender and family dynamics and the psychology
of money with the goal of encouraging financial equality among members of families of all types. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CNSR SCI 275 Consumer Finance Credits: 3
An introduction to concepts and methods used in personal and family financial planning. Methods for planning
and allocating resources to attain specific financial objectives are discussed. Topics include investments in real
and financial assets, consumer credit issues, and insurance, pension, tax, and estate planning. Prereq: None
Typically Offered: Fall, Spring, Summer

CNSR SCI 299 Independent Study Credits: 1 - 3
Directed study projects for freshmen and sophomores as arranged with a faculty member. Prereq: Consent of
instructor
Typically Offered: Fall, Spring, Summer

CNSR SCI 301 Advanced Consumer Analytics Credits: 3
By the end of this semester, you will be able to leverage data analysis to drive consumer business decisions via
the telling of a compelling, evidence-based story. The course is structured 1) to provide you with a core process
by which data analysis can produce effective business actions, 2) to build your analytical abilities to execute the
process and 3) to establish a method by which analytical results can be transformed into effective stories. The
process and methods studied in this course will have application across a broad range of careers. Prereq: None
Typically Offered: Fall

CNSR SCI 312 Financial Life Skills for Life After Graduation Credits: 1
This is an applied personal finance course that provides students nearing graduation (juniors and seniors) the
knowledge and tools needed to successfully manage personal finances after college. Topics include financial
values and behaviors, credit and student loans, housing, transportation, financial services, retirement planning,
investing, and spending and saving plans. Prereq: Junior standing. Not open to graduate students
Typically Offered: Fall, Spring

CNSR SCI 340 Building Financial Assets and Capability for Vulnerable Families Credits: 3
This course prepares students to help assess and prevent household financial problems and improve financial
security. Based on the context of vulnerable households, financial services and public policy, this course focuses
on skills related to managing cash flow, credit and debt, saving for emergencies and long-term goals. Prereq: Satisfied Communication A requirement
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CNSR SCI 350 Mediation: A Mechanism for Serving the Consumer Interest Credits: 3
Will examine the area of dispute resolution for consumer complaints mediated by consumer affairs professionals.
Discussion of how mediation empowers the consumer interest; consumer complaint behavior, and areas of
dispute in industry and government will be integral parts of this course. Prereq: None
Typically Offered: Occasionally

CNSR SCI 355 Financial Coaching Credits: 3
Financial coaching is an approach influenced by the fields of positive psychology and behavioral economics to
help individuals build financial capability. This experiential course will prepare students for financial, social work,
and asset building services. Prereq: None
Typically Offered: Spring

CNSR SCI 360 Sustainable and Socially Just Consumption Credits: 3
Examines how consumers influence sustainability and social justice through their purchases and how policy and
globalization influence their choices. Students conduct original consumer research, and present their findings in
an oral presentation and a research paper. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
CNSR SCI 370 Computer Applications in Retailing Credits: 3
Application of computer technology and analysis within the retailing environment. Topics include: merchandise inventory control and distribution, trend analysis and forecasting, electronic POS systems, credit authorization and control, store design and planning, and ethical issues. Prereq: CNSR SCI 257
Typically Offered: Occasionally

CNSR SCI 465 Families & Poverty Credits: 3
This course introduces students to research at the intersection of family and poverty studies. We will learn how family behaviors vary by socioeconomic status; how romantic relationships, childbearing, and childrearing may be implicated in poverty; what the consequences of poverty are for family functioning and children; and about the role of policy in influencing families and poverty. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CNSR SCI 470 History of Consumer Movements in the United States Credits: 3
A survey of the historical interpretations and analyses of consumer activist efforts in the United States from the mid-nineteenth century to the late twentieth century. Prereq: Sophomore standing
Typically Offered: Occasionally

CNSR SCI 475 Family Economics Credits: 3
Analysis of the family as a unique economic unit in the changing American economy. Prereq: ECON 101 or ECON 111
Typically Offered: Occasionally

CNSR SCI 477 The Consumer and the Market Credits: 3
Analysis of the consumer's market, consumer's behavior, and government policies affecting the consumer in the American economy. Prereq: ECON 101 or ECON 111
Typically Offered: Fall, Spring

CNSR SCI 478 Consumer Information Credits: 3
Analysis of information available to consumers; evaluation of its sources and its quality. Examination of consumers' and consumerists' efforts to obtain information and to influence information sources. Evaluation of consumers' performances in the marketplace under conditions of incomplete information. Prereq: CNSR SCI 477
Typically Offered: Occasionally

CNSR SCI 501 Special Topics Credits: 1 - 3
Specialized subject matter of current interest to undergraduate students. Prerequisites vary by topic. Prereq: None
Typically Offered: Fall, Spring

CNSR SCI 503 Preparation for Retailing Internship Credits: 1
Course prepares students for the competitive interviewing process required for retailing internship placement. Students research individual companies, analyze industry trends, and develop strategies for effective interviewing. Prereq: Consent of instructor
Typically Offered: Occasionally

CNSR SCI 527 Consumer Spending and Saving Over the Lifecycle Credits: 3
Analysis of consumer patterns of spending and saving from a lifecycle perspective. Introduces consumption theory and economic, social and psychological factors affecting consumption patterns. Prereq: Junior standing and CNSR SCI 275
Typically Offered: Occasionally

CNSR SCI 555 Consumer Strategy & Evaluation Credits: 3
Leveraging a combination of design thinking and strategic planning, students will design a clear plan of action with compelling evidence for expected outcomes, implement the proposed plan with contingencies for the inevitable challenges and adjustments, and evaluate impact relative to goals with objective recommendations for future action. Prereq: Junior standing
Typically Offered: Fall, Spring

CNSR SCI 560 Retail Promotion Credits: 3
Developing store image through visual merchandising, advertising, sales, and other promotional activities. Prereq: CNSR SCI 257
Typically Offered: Spring
CNSR SCI 561 Retail Channel Strategy & Omni-Channel Retailing Credits: 3  
This course immerses students in the effective design of retail channel strategies, where channels include physical stores, ecommerce, mobile, television and catalog. Special attention is paid to the ways in which retailers and consumers leverage more than one channel to create innovative and relevant experiences to enhance value and relationships. Students leverage the SoHE Digital Sandbox to experience these channels firsthand, constructing and testing their own omnichannel retail experiences..  Prereq:  Junior standing  
Typically Offered: Spring

CNSR SCI 562 The Global Consumer Credits: 3  
Key issues in international retailing with consideration of the global consumer.  Prereq:  CNSR SCI 257  
Typically Offered: Fall

CNSR SCI 564 Retail Financial Analysis Credits: 3  
Provides tools for planning and analyzing retail financial performance. Includes elements of retail financial statements, pricing, purchasing terms and conditions, merchandise planning, inventory control, and economic factors that impact retail businesses.  Prereq:  (ACCT I S 100 or ACCT I S 300 or GEN BUS 310) and CNSR SCI 257  
Typically Offered: Fall, Spring

CNSR SCI 565 Seminar in Consumer Science Credits: 3  
Analysis of the economic welfare of the family in a changing economy and current social policy issues.  Prereq: Senior standing  
Typically Offered: Occasionally

CNSR SCI 567 Product Development Strategies in Retailing Credits: 3  
Merchandise product development planning through market trend analysis, assortment planning & sourcing production.  Prereq:  CNSR SCI 257  
Typically Offered: Spring

CNSR SCI 575 Family Economics and Public Policy Credits: 3  
Analysis of objectives of public policies specifically concerned with the economic welfare of families as expressed or proposed in federal and state legislation; appraisal of their economic and social consequences; and analysis of the issue.  Prereq:  ECON 101 or ECON 111  
Typically Offered: Occasionally

CNSR SCI 579 Consumer Policy Analysis Credits: 3  
Analysis of consumer policies enacted and proposed at federal, state, and municipal levels; application of economic analysis to consumer laws, public policies and regulations; study of the process of creating and enforcing legislation and impacts on consumers' well-being.  Prereq:  Junior standing  
Typically Offered: Fall

CNSR SCI 601 Consumer Science Internship Credits: 1 - 8  
Enables students with supervised internships to earn academic credit while engaged in a professional experience in consumer science related fields. Course intended for juniors and seniors in Consumer Science.  Prereq: Consent of instructor  
Typically Offered: Fall, Spring, Summer

CNSR SCI 602 Field Experience in Retailing Credits: 1  
Enables students with supervised field experiences to earn academic credit while engaged in a professional experience in retailing related fields. Course intended for sophomores in Retailing and Consumer Behavior.  Prereq: Consent of instructor  
Typically Offered: Occasionally

CNSR SCI 603 Retailing Internship Credits: 1 - 6  
Enables students with supervised internships to earn academic credit while engaged in a professional experience in retailing related fields. Course intended for juniors and seniors in Retailing and Consumer Behavior.  Prereq: Consent of instructor  
Typically Offered: Fall, Spring, Summer
**CNSR SCI 627 Advanced Consumer Finance** Credits: 3  
Studies financial markets and instruments from the perspective of individual consumers and their portfolio decisions over their lifetime.  
Prereq: CNSR SCI 275  
Typically Offered: Fall

**CNSR SCI 635 Estate Planning for Financial Planners** Credits: 3  
Analysis from a financial planner's perspective of the process of planning the accumulation, conservation, and distribution of an estate, in the manner that most effectively and efficiently accomplishes an individual's personal tax and non-tax objectives.  
Prereq: CNSR SCI 275 or ECON/FINANCE 300  
Typically Offered: Spring

**CNSR SCI 657 Consumer Behavior** Credits: 3  
Analyses from social and psychological perspectives. Motivation, perception, learning and attitude formation. Effects of social class, family structure, cultural backgrounds and reference groups.  
Prereq: Sophomore standing  
Typically Offered: Fall, Spring

**CNSR SCI 665 Household Risk Management** Credits: 3  
Application of advanced analytical techniques to examine household financial risk. Implications for financial planning of changes in family structure and earnings. Private and social insurance that guard against economic consequences of death, disability, ill health, retirement, marital dissolution. Use of financial planning software.  
Prereq: ECON 101 or ECON 111 and CNSR SCI 275  
Typically Offered: Fall

**CNSR SCI 675 Family Financial Counseling** Credits: 3  
Systems approach to family financial management, stressing development of interpersonal techniques by professionals who will assist individuals and families to become responsible financial managers.  
Prereq: CNSR SCI 275 and CNSR SCI 627  
Typically Offered: Spring

**CNSR SCI 681 Senior Honors Thesis** Credits: 2 - 4  
Individual study for seniors completing theses for Human Ecology honors degrees as arranged with a faculty member.  
Prereq: Consent of instructor  
Typically Offered: Fall, Spring

**CNSR SCI 691 Senior Thesis** Credits: 2  
Individual study for seniors completing theses as arranged with a faculty member.  
Prereq: Consent of instructor  
Typically Offered: Fall, Spring

**CNSR SCI 699 Independent Study** Credits: 1 - 6  
Directed study projects for juniors and seniors as arranged with a faculty member.  
Prereq: Consent of instructor  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

**CNSR SCI 748 The Economic Organization of the Household** Credits: 3  
Applies intermediate microeconomic theory to analyze household resource allocation decisions. Surveys current household economic decision theories and models. Life cycle analysis of goods and service consumption, intrahousehold paid work, household production and leisure time allocation, household decisions about fertility, marriage and divorce. A prior intermediate microeconomics course is recommended.  
Prereq: Graduate or professional standing  
Typically Offered: Occasionally

**CNSR SCI 888 Advanced Consumer Behavior** Credits: 3  
The purpose of this class is to provide graduate students with a broad-based knowledge of the consumer behavior literature. The objective of the course is to develop students as active researchers in fields that require an understanding of consumer research. A prior undergraduate or graduate course in consumer behavior is recommended.  
Prereq: Graduate or professional standing  
Typically Offered: Occasionally

**CNSR SCI 901 Graduate Special Topics in Consumer Science** Credits: 1 - 3  
Specialized subject matter of current interest to graduate students.  
Prereq: Graduate or professional standing. Prerequisites vary by topic  
Typically Offered: Occasionally
CNSR SCI 930 Seminar in Family Economic Policy Credits: 3
Graduate seminar on family economic well-being and the social and consumer policies that influence economic behavior and family economic status. Topics vary each year. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CNSR SCI 960 Seminar in Consumer Research Credits: 1 - 3
The identification of concepts, frameworks and theories used in consumer research. An introduction to and critique of selected topical areas of consumer research. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CNSR SCI 990 Research and Thesis Credits: 1 - 12
Independent research and writing for graduate students under the supervision of a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

CNSR SCI 999 Independent Study Credits: 1 - 3
Directed study projects for graduate students as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

DESIGN STUDIES

DS 101 Introduction to Textile Design Credits: 3
This survey class will be an introduction to the technical and conceptual ways of working in Textile Design. Students will participate in three five week modules: one module introducing print and dye concerns, one module introducing off-loom processes, and one module introducing structural enrichment techniques and concepts. Each module will include a series of introductory exercises leading to a final larger project. The work in each module will be supported by short readings and slide lectures highlighting historical and contemporary work. Course fee: yes. Prereq: None
Typically Offered: Fall

DS 120 Design: Fundamentals I Credits: 3
Elements and principles of design. Lecture and studio experience relevant to design of the visual environment. Prereq: None
Typically Offered: Fall, Spring

DS 130 Introduction to Interior Architecture Credits: 3
This course is an introduction to interior architecture, as a discipline and as a profession. We will examine the ways in which interior environments impact our lives, and the challenges and responsibilities faced by those who work in this field. Topics include: the history of interior design as a profession; the increased professionalization of interior design; the relation of interior design to other design disciplines (such as architecture and furniture design); the social, economic, and environmental issues that impact design; the role of emerging technologies (including digital media); design research and documentation; the elements and principles of design; the identification and obser
Typically Offered: Spring

DS 153 Fabric and Apparel Structures I Credits: 3
Introduction to the physical and aesthetic properties of fiber, yarn and fabric and to the fundamentals of apparel structure in the context of apparel design. Lectures and studio projects explore the interrelationship of fabric, design, and apparel construction. Prereq: None
Typically Offered: Fall

DS 154 Processes for Apparel Design: Clothing Construction II Credits: 3
Analysis of fabric suitability in relation to silhouette, target market and consumer end use. Fabrication and construction of a line of apparel for a specified individual and purpose. Emphasis on fabrics requiring special handling. Advanced construction techniques are introduced. Prereq: DS 153
Typically Offered: Spring

DS 210 Fashion Illustration Credits: 3
Introduction to visual communication of apparel design concepts using selected media. Focus is on drawing the fashion figure, using special techniques, with emphasis on the relationship of figure, garment, fabric, texture, and pattern. Prereq: DS 120 and DS 154
Typically Offered: Fall
DS 215 Patternmaking for 3D Forms Credits: 3
The principles and theories of flat pattern, drafting and draping methods for 3D accessories are explored. The principles of patternmaking are applied to headwear, handbags and footwear. Students complete projects that require designing, patterning and constructing hats, bags and footwear. Prereq: DS 153
Typically Offered: Spring

DS 220 Design: Fundamentals II Credits: 3
Elements and principles of three-dimensional design. Lecture and studio experience relevant to design and analysis of the spatial environment. Prereq: DS 120 and (ME 160 or ART 112)
Typically Offered: Spring

DS 221 Person and Environment Interactions Credits: 3
Effects of building and outdoor spaces on people over the life course. Prereq: None
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

DS 222 Interior Design I Credits: 4
Understanding and applying the process of solving design problems of interiors. Space planning; selection and use of furnishings and materials; preparation of presentations. Prereq: Declared in Interior Architecture program and DS 220
Typically Offered: Fall

DS 223 Interior Architectural Design Credits: 3
Building components, construction, interpretation of working drawing, and the process of project development. Prereq: DS 222
Typically Offered: Fall

DS 224 Interior Materials and Finishes Credits: 3
The materials used in interior environments are immense, diverse and constantly changing. This course will focus on the composition of materials, their uses, and how they affect human health and well being. Prereq: Declared in Interior Architecture program
Typically Offered: Fall

DS 225 Apparel Design I Credits: 3
Basic principles and elements of design as they apply to apparel. Emphasizing both process and product, students analyze fashion trends and practical problems while developing and executing original designs. Prereq: DS 210 and DS 253
Typically Offered: Spring

DS 226 Textile Design: Off-Loom Construction Credits: 3
Studio design problems in two and three dimensional off-loom constructions; off-loom weaving, looping, and knotting; historical reference and contemporary application. Prereq: DS 120 and DS 153
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

DS 227 Textile Design: Printing and Dyeing I Credits: 3
Surface design developed in print and resist techniques using historic and contemporary methods. Prereq: DS 120 and DS 153
Typically Offered: Spring

DS 228 Textile Design: Structural Enrichment I Credits: 3
Historic and contemporary design techniques creating structural enrichment of textiles. Prereq: DS 120 and DS 153
Typically Offered: Spring

DS 229 Textile Design: Weaving I Credits: 3
Development of individual design solutions within basic weave structures. Historical and technical influence on contemporary woven design. Prereq: DS 120 and DS 251
Typically Offered: Fall
DS 241 Visual Communication I Credits: 3
The course focuses on the basic concepts, methods and materials used for communicating ideas during the design process. The course emphasizes creating visually driven experiences, with the goal of giving students the tools to integrate traditional manual approaches with up-to-the-minute digital approaches, all within the context of creative design thinking. Prereq: Declared in Interior Architecture program
Typically Offered: Fall

DS 242 Visual Communication II Credits: 3
Advanced topics focusing on the concepts, methods and materials used for communicating ideas during the design process. With an emphasis on creating visually driven experiences, the course integrates traditional manual approaches with up-to-the-minute digital approaches, all within the context of creative design thinking. Prereq: DS 241
Typically Offered: Spring

DS 251 Textile Science Credits: 3
Typically Offered: Spring

DS 253 Patternmaking for Apparel Design Credits: 3
The theory and principles of pattern making through flat pattern and draping techniques. Prereq: DS 154
Typically Offered: Fall

DS 264 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

DS 299 Independent Study Credits: 1 - 3
Directed study projects for freshmen and sophomores as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

DS 319 Cloth to Clothing Credits: 3
This studio class will explore specific dye and manipulation techniques that directly relate to integrated textile and garment design. Working with color, composition and fabric movement we will discuss simple garment shapes and how they can be used in conjunction with expressive textiles. Prereq: DS 153 and DS 227
Typically Offered: Fall

DS 320 Design: Sketching and Rendering Credits: 4
Introduction to various drawing media and techniques for visually communicating design concepts. Prereq: ME 160 and ART 112
Typically Offered: Occasionally

DS 322 Interior Design II Credits: 4
Design of residential interiors including space planning, lighting design, selections of materials and furniture, professional communication of design solutions. Emphasis on the aesthetic and functional needs of the family and residents with special needs. Prereq: DS 222
Typically Offered: Spring

DS 323 Computer Aided Design: Architecture and Interiors Credits: 3
The class emphasized the use of CAD (Computer Aided Design) as a design/problem solving method, and as a means of creating both construction documents and presentation drawings. Three dimensional CAD drawings are created using both parallel and perspective projection techniques. Prereq: ME 160
Typically Offered: Occasionally
DS 327 Textile Design: Manual/Computer Generated Imagery and Pattern Credits: 3
Studio problems in surface pattern design on textiles (motif, layout, repeats, colorways, coordinates), using various manual and computer methods. Development of imagery, design concepts, and presentation. Prereq: DS 120 and DS 227
Typically Offered: Fall

DS 355 History of Fashion, 1400-Present Credits: 3
Changing form and meaning of costume in the West from Renaissance to present. Dress considered in relation to social/cultural milieu and as an art form. Includes treatment of the body; ethnic/class variations; couture; "antifashion". Prereq: Junior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DS 356 Sustainable Residential Construction Credits: 3
Properties and use of building materials, framing systems, HVAC systems, code requirements, conservation of natural resources in building construction and operation. Prereq: MATH 112, 114, or 171
Typically Offered: Spring

DS 360 Global Perspectives on Design and Culture Credits: 3
Explores how design reflects/encodes culture through cross-cultural examination of living environments and ways groups accommodate universal human needs such as seating and baby-carrying. Considers inter-cultural design interfaces and uses a design perspective to look at globalization issues. Prereq: DS 120
Typically Offered: Occasionally

DS 361 Design-Related International Experience Credits: 1 - 6
In-depth study of art/design concepts and/or practice in a specific culture. Each class looks at cultural issues through a particularized design-related lens. Students live and work in the country they are studying. Prereq: DS 120 or ART 104
Typically Offered: Summer

DS 363 American Decorative Arts and Interiors: 1620-1840 Credits: 3 - 4
Interdisciplinary study of the design, production, and consumption of household objects and their American domestic settings, 17th through the early 19th centuries. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DS 420 Twentieth Century Design Credits: 3
In-depth study of art/design concepts and/or practice in a specific culture. Each class looks at cultural issues through a particularized design-related lens. Students live and work in the country they are studying. Prereq: DS 120 or ART 104
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DS 421 History of Architecture and Interiors I: Antiquity through 18th Century Credits: 3
This course surveys the history of architecture, interiors, furnishings and decorative arts from antiquity to the mid-19th century. Lectures and readings introduce major design cultures and movements, emphasizing the role of social, economic, political, technological, and aesthetic factors in the shaping design. Prereq: DS 120 or ART HIST 201 and 202
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DS 422 History of Architecture & Interiors II: 19th and 20th Centuries Credits: 3
This course surveys the history of architecture, interiors, furnishings and decorative arts from the mid-19th to the mid-20th century. Lectures and readings introduce major design cultures and movements, emphasizing the role of social, economic, political, technological, and aesthetic factors in the shaping design. Prereq: DS 421 or ART HIST 201 and 202
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

DS 425 Apparel Design II Credits: 3
Development and execution of designs for special audiences. Examines sources of inspiration, selection of fabrics, decorative detailing and accessories. Emphasizes the importance of ability to visualize and express one's ideas verbally and through the use of technical flats and sketches. Prereq: DS 225
Typically Offered: Occasionally
DS 427 Textile Design: Printing and Dyeing II Credits: 3
Focuses on silkscreen printing. Discharge, burnout, and chemical resist processes, specific to screen printing, will be introduced. Students will be asked to develop conceptual ideas and explore alternative ways of producing images. Prereq: DS 227 and DS 327
Typically Offered: Occasionally

DS 428 Textile Design: Structural Enrichment II Credits: 3
Structural enrichment of textiles including historic and contemporary design techniques. Historic resource material and adaptation of techniques for original expression. Prereq: DS 228
Typically Offered: Occasionally

DS 429 Textile Design: Weaving II Credits: 3
Analysis of complex or compound hand weave techniques. Individual development of solutions to problems of structural textile design. Prereq: DS/ART 229
Typically Offered: Spring

DS 430 History of Textiles Credits: 3
Designs and meanings and interrelationships of textiles in selected cultures and time periods. Prereq: None
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

DS 451 Color Theory and Technology Credits: 3
Color technology and its impact on a variety of scientific and design oriented fields are discussed. Emphasis is placed on the spectrophotometric measurement of color and the use of computer technology to create, analyze and match color. Prereq: Satisfied Quantitative Reasoning (QR) A requirement
General Education: QR-B Typically Offered: Fall, Spring

DS 464 Dimensions of Material Culture Credits: 3
Approaches to the interdisciplinary study of the material world in order to analyze broader social and cultural issues. Guest speakers explore private and public objects and spaces from historic, ethnographic, and aesthetic perspectives. Prereq: 1 course at the 300 level or above from ART HIST or DS
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

DS 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of instructor
Typically Offered: Occasionally

DS 501 Special Topics Credits: 1 - 3
Specialized subject matter of current interest to undergraduate students. Prereq: Prerequisites vary by topic
Typically Offered: Fall, Spring, Summer

DS 512 Material Culture Analysis: The Arts and the Consumer Society Credits: 3
The meanings of objects--both art objects and consumer goods. Interactions between people and objects; "decoding" objects as primary sources of information about the people/cultures that make and use them. Prereq: Junior standing
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

DS 528 Experimental Textile Design Credits: 2 - 3
Experimental design and decorative principles; elements and techniques for the animation of textile surfaces. Prereq: None
Typically Offered: Occasionally

DS 545 Placemaking Credits: 3
Studies the affective qualities of man-made environments. Seeks understanding of specific qualities found in environments and the conditions that produce them. Students are encouraged to develop and implement a personal design philosophy. Prereq: Junior standing and declared in Interior Architecture
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
DS 561 Textiles: Specifications and End Use Analysis Credits: 3
Physical textile testings are studied. Emphasis is placed on the evaluation of textiles intended for use as apparel and for interiors. Writing specifications, and minimum performance standards are also discussed. Prereq: DS 224 or DS 251
Typically Offered: Fall

DS 579 Virtual Reality Credits: 3
This course introduces students to the field of virtual reality and focuses on creating immersive, interactive virtual experiences. Survey topics include historical perspectives on virtual reality technology, computer graphics and 3D modeling, human perception and psychology, human computer interaction and user interface design. This course is designed for students with backgrounds in Computer Science, Engineering, Art, Architecture and Design. Students will work in interdisciplinary teams on projects, culminating in a final event that will be showcased to the public. While not an official prerequisite, the class will be technologically motivated; therefore students should be comfortable lea
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

DS 601 Internship Credits: 1 - 8
Enables students with supervised internships to earn academic credit while engaged in a professional experience in design studies related fields. Course intended for juniors and seniors in Design Studies. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

DS 610 Apparel Design: Professional Practices Credits: 3
Professional orientation for apparel designers. Prereq: Senior standing
Typically Offered: Occasionally

DS 622 Interior Design III Credits: 4
Design of commercial interiors with emphasis on design process, programming, space planning, selection of interior materials, furniture, and lighting. Field trip required. Prereq: DS 322
Typically Offered: Fall

DS 623 Interior Design IV Credits: 4
Design of commercial interiors with emphasis on acoustics, codes, costs, specifications, details, and visual presentation. Field trip required. Prereq: DS 622
Typically Offered: Spring

DS 624 Portfolio Preparation Credits: 3
Portfolio organization and presentation. Development of resume, preparation for interviews, and coverage of professional practice. Senior level portfolio review prerequisite for completion of course. Prereq: DS 622
Typically Offered: Occasionally

DS 630 Housing Environments for Older People Credits: 3
Investigation of the environmental needs and design considerations for supportive housing for older people. Housing options are studied in terms of 1) how they support older people of various ages, capabilities, and finances; and 2) the implications of selecting a certain housing option. Prereq: Junior standing
Typically Offered: Occasionally

DS 633 Advanced Interior and Architectural Design Visualization Credits: 3
Computer aided design (CAD) and computer visualization explored as interior and architectural design tools. Simulation and analysis of 3D environments. Prereq: DS 120 and ME 160
Typically Offered: Occasionally

DS 639 Culture and Built Environment Credits: 3
The course explores cultural values embedded in buildings through understanding physical configurations, social organizations, practiced/symbolic/representational aspects of buildings. The course covers a wide range of cultures and the built environments they produce including examples from the Americas, the Middle East, as well as those of the many ethnic minorities in the U.S. Prereq: Junior standing
Ethnic Studies: Yes L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
DS 640 Topics in Ethnographic Textiles Credits: 3
Ethnographic survey of non-western textiles; technological, aesthetic, functional, and historical aspects. Geographical area varies: African, East Asian, Southeast Asian, Ibero-American or Native American textiles.
Prereq: DS 430
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

DS 642 Taste Credits: 3
Exploration of the idea of taste - both "good" and "bad", in "popular" and "high" culture. Cross-cultural readings from theoretical and historical perspectives, relating to architecture, landscape, public space, art, and clothing.
Prereq: Graduate standing
Typically Offered: Fall

DS 655 Comparative World Dress Credits: 3
Variations in form, function and meaning of dress in diverse social and cultural contexts; dress as an art form.
Prereq: Junior standing
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

DS 681 Senior Honors Thesis Credits: 2 - 4
Individual study for seniors completing theses for Human Ecology honors degrees as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring

DS 689 Senior Thesis Credits: 2 - 4
Individual study for seniors completing theses as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

DS 699 Independent Study Credits: 1 - 6
Directed study projects for juniors and seniors as arranged with a faculty member. Prereq: Consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

DS 720 Literature of Design Theory Credits: 3
Theories from basic disciplines pertinent to design fields such as applied and decorative art. A range of conceptual approaches for studying the material artifact. Prereq: Graduate or professional standing
Typically Offered: Occasionally

DS 764 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; dit
Typically Offered: Occasionally

DS 920 Seminar in Design Studies Credits: 1 - 3
This course is intended as forum for Design Studies graduate students to discuss issues in contemporary art and design. Prereq: Consent of instructor
Typically Offered: Occasionally

DS 955 Practical Research Design and Methods of Empirical Inquiry Credits: 3
Provides a practical introduction to basic concepts of research question formulation, research designs and alternative methods of inquiry, implications for internal validity of the research and generalizability of the findings, operational definitions and measurement validity, reliability, utility and precision. Prereq: Graduate or professional standing
Typically Offered: Occasionally

DS 990 Research and Thesis Credits: 1 - 12
Independent research and writing for graduate students under the supervision of a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer
DS 999 Independent Study Credits: 1 - 3
Directed study projects for graduate students as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

HUMAN DEVELOPMENT & FAMILY STUDIES

HDFS 299 Independent Study Credits: 1 - 3
Directed study projects for freshmen and sophomores as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring

HDFS 362 Development of the Young Child Credits: 3
This course provides a basic foundation for understanding development from conception through middle childhood. Content includes theoretical foundations, research findings, and practical applications. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HDFS 363 Development from Adolescence to Old Age Credits: 3
This course provides a basic foundation for understanding development from adolescence through old age. Content includes theoretical foundations, research findings, and practical applications. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HDFS 425 Research Methods in Human Development and Family Studies Credits: 3
Basics of research design used in studying family studies and individual development over the life course. Quantitative and qualitative research designs, participatory action research, and evaluation research, how research informs intervention and prevention programs. Prereq: HDFS 362, ED PSYCH 320, PSYCH 560, or HDFS 363
Typically Offered: Fall, Spring

HDFS 464 Play-Development and Role Across the Lifespan Credits: 3
The role and function of play (and playfulness) in promoting development across the lifespan. Prereq: HDFS 362, ED PSYCH 320 or PSYCH 560
Typically Offered: Occasionally

HDFS 465 Families & Poverty Credits: 3
This course introduces students to research at the intersection of family and poverty studies. We will learn how family behaviors vary by socioeconomic status; how romantic relationships, childbearing, and childrearing may be implicated in poverty; what the consequences of poverty are for family functioning and children; and about the role of policy in influencing families and poverty. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HDFS 469 Family and Community Influences on the Young Child Credits: 3
Interaction of child in socialization settings, especially the family; socialization processes in the social system of child-family-community. Prereq: None
Typically Offered: Occasionally

HDFS 471 Parent - Child Relations Credits: 3
Parents' interaction with their children, programs for parents, and parents' interactions with other institutions. Prereq: HDFS 362, ED PSYCH 320, PSYCH 560 or HDFS 363
Typically Offered: Fall, Spring

HDFS 474 Racial Ethnic Families in the U.S. Credits: 3
Examines the diversity of family life and human development across and within racial ethnic groups in the United States as shaped by race, ethnicity, culture, biculturalism, and the social contexts of history, economics, immigration, and socio-political conditions. Prereq: Sophomore standing
Ethnic Studies: Yes  Typically Offered: Fall, Spring
Development and social change issues related to Black American children and their families. Race-related socialization of children, early development in rural and urban Black families, exploration of theoretical paradigms, as well as the impact of social change on empirical research and theoretical perspectives. Prereq: Sophomore standing
Ethnic Studies: Yes Typically Offered: Occasionally

HDFS 501 Special Topics Credits: 1 - 3
Specialized subject matter of current interest to undergraduate students. Prereq: Prerequisites vary by topic
Typically Offered: Fall, Spring

HDFS 516 Stress and Resilience in Families Across the Lifespan Credits: 3
Examines family stress and resilience across the life cycle from psychological, sociological, and biosocial perspectives. Explores research relating to normative and non-normative family stress and resiliency factors. Topics include parenting, poverty, violence, work-family balance, aging, health and wellness and others. Prereq: None
Typically Offered: Fall, Spring

HDFS 517 Couple Relationships Credits: 3
Romantic relationships are universally desired, and individuals around the globe agree about what successful intimacy entails: we all want to be loved, supported, and cared for by partners we hold in high esteem. Nevertheless, intimate relationships can be difficult to form and maintain. This course covers a range of theoretical perspectives and methodologies to understand how it is that intimate relationships develop, thrive, or deteriorate over time. The course will also connect intimate relationship science to real life experiences. Prereq: Sophomore standing
Typically Offered: Fall, Spring

HDFS 521 African American Families Credits: 3
Historical background; variations in contemporary family patterns; courtship and marriage, reproduction, and socialization stresses; “culture of poverty” theories; sources of stability and change. Prereq: Junior standing
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HDFS 522 American Indian Families Credits: 3
Interdisciplinary examination of American Indian families in historical and contemporary contexts. Emphasizes the changing experience and structure of Native families in response to changing political, economic, social, and cultural pressures and policies over the past 200 years and contemporary challenges. Prereq: Junior standing
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HDFS 535 A Family Perspective in Policymaking Credits: 3
Students will explore the relationship between family functioning and public/private policies at the local, state and federal levels; analyze the consequences of issues, policies or programs on family well-being; and, examine roles for professionals in influencing policy development. Prereq: Junior standing
Typically Offered: Fall, Spring

HDFS 592 Research Experience in Human Development and Family Studies Credits: 1 - 3
Research experience under the supervision of a faculty member in Human Development and Family Studies. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

HDFS 601 Internship Credits: 1 - 8
Enables students with supervised internships to earn academic credit while engaged in a professional experience in human development and family studies related fields. Course intended for juniors and seniors in Human Development and Family Studies. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

HDFS 616 Mass Media and Youth Credits: 3
Children’s and adolescents’ use of mass media and mass media effects on them. Particular attention is given to changes in comprehension and other cognitive activities that give insights into media use and effects. Prereq: JOURN 202, COM ARTS 325, HDFS 362, LSC 251
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
HDFS 650 Parent Education and Support Programs Credits: 3
The purposes, contexts, and implementation of parenting support and education programs are studied. Some sections may include a service learning component. Prereq: HDFS 362, ED PSYCH 320 or PSYCH 560
Typically Offered: Fall, Spring

HDFS 662 Advanced Study of the Young Child Credits: 3
Research literature and current theories; topics of individual interest. Prereq: HDFS 362, ED PSYCH 320 or PSYCH 560
Typically Offered: Occasionally

HDFS 663 Developmental and Family Assessment Credits: 3
Introduces students to the process of family-focused developmental assessment with infants and young children, including family interviewing, taking developmental histories, observing children, and developmental screening. Prereq: HDFS 362, ED PSYCH 320 or PSYCH 560
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HDFS 664 Proseminar: Human Development and Family Studies Credits: 1 - 3
Survey and introduction to children and families. Required of all first year graduate students in Human Development and Family Studies. Credit varies by semester. Prereq: Graduate standing
Typically Offered: Occasionally

HDFS 681 Senior Honors Thesis Credits: 2 - 4
Individual study for seniors completing theses for Human Ecology honors degrees as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring

HDFS 691 Senior Thesis Credits: 2
Individual study for seniors completing theses as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring

HDFS 699 Independent Study Credits: 1 - 6
Directed study projects for juniors and seniors as arranged with a faculty member. Prereq: Consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HDFS 725 Theory and Issues in Human Development Credits: 3
This course covers both classic and contemporary theories, providing students with a firm grounding in the theoretical perspectives that have shaped and are shaping understandings of human development across the life-span. The course explores the historical roots of contemporary perspectives and examines the development of theoretical conceptualizations both within and across theoretical perspectives. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 726 Ethnic and Racial Diversity in Social Development Credits: 3
Review of empirical and theoretical research on ethnic/racial diversity in social development across childhood, adolescence and early adulthood with emphasis on implications for counseling and school psychology. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 727 Culture and Human Development Credits: 3
This seminar examines a wide set of issues related to understanding the role of culture in processes of human growth and maturation, and a related set of issues dealing with how we research culture and human development. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 760 Infancy and the Family Credits: 3
Understanding of infants' socio-emotional, language, cognitive, perceptual and motor development within the context of the family and other social settings. Issues related to early developmental psychopathology and intervention will also be covered. Prereq: Graduate or professional standing
Typically Offered: Occasionally
HDFS 761 Childhood and the Family Credits: 3
Explores family socialization topics relevant to development issues in the early and middle childhood. Relevant contextual issues i.e. class, caste, culture and gender will be interfaced with traditional topics such as, sex stereotyping, racial identity, play, social competence, attachment, moral development and aggression. Prereq: Graduate or professional standing
L&S Level: Advanced  Typically Offered: Occasionally

HDFS 763 Aging and the Family Credits: 3
Psychological and social aspects of aging. Interaction of aged individual with the family and larger social systems. Developmental principles, methodological considerations, theoretical/empirical issues, and findings. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 766 Current Issues in Family Living Credits: 1 - 3
Specialized subject matter of current interest to graduate students. Literature, research, and current trends, with implications for teaching, parent education, and other professions. Prereq: Graduate or professional standing. Prerequisites vary by topic
Typically Offered: Fall, Spring

HDFS 817 Couple Relationships: Theory, Research, and Application Credits: 3
This course will review current research on the nature, dynamics, and developmental course of couple relationships and explore the implications of this scientific knowledge for prevention/intervention programs and policy. Contemporary theories and empirical research will be examined. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 818 Attachment Theory and Relationships Across the Lifespan Credits: 3
Examines parent-child and intimate relationships using attachment theory and research (and critiques of this approach), focusing on relationships formed in infancy and across the lifespan. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 841 The Educational Role of the Family in Early Childhood Development Credits: 3
Socialization practices associated with development and education in early childhood; focus on parental teaching practices which influence techniques, communication styles, and cognitive styles within the context of social class and family structure; emphasis on theory, research, and educational applications. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 842 Parent-Child Relations Across the Life Course Credits: 3
Parent-child relations as a dynamic reciprocal process from an interdisciplinary and multicultural perspective. Historical and contemporary views on parenthood across the life course will be covered in the context of traditional and nontraditional family forms. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 843 Family Policy: How It Affects Families & What Professionals Can Do Credits: 3
Covers how policies affect families and whether policies would be more effective if approached from a family perspective. Students will learn theories for conceptualizing family policy, how to conduct family impact analysis, and strategies for connecting research and policymaking. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 865 Family Theory I (Survey) Credits: 3
An advanced course which surveys the current theories and models used in family research and theory development. Focus will be on structure-functional, interactional, developmental, systems, and exchange theory in relation to family research and application. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HDFS 869 Advanced Seminar in Family Stress and Coping Credits: 3
Emphasis on theoretical explanations of family stress from various levels of analysis--individual, social network, family, community, and larger social context. Considers sources of stress and how families experience, respond to, cope with, and resolve stress. Prereq: Graduate or professional standing
Typically Offered: Occasionally
**HDFS 872 Bridging the Gap Between Research and Action** Credits: 3
Addresses the critical skills and methods needed to gather and apply research-based knowledge and theory to human development and family studies. Strategies for conducting research relevant to social policy, programs, and the general public will be discussed as well as techniques for communicating research. Prereq: Graduate or professional standing
Typically Offered: Occasionally

**HDFS 880 Prevention Science** Credits: 3
This course provides a theoretical, empirical and practical foundation for prevention science as it relates to the prevention of human social problems. Research and evaluation methods, program design strategies, best practices and policy as they relate to the field of prevention are also examined. Intended for 2nd year graduate students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

**HDFS 881 Capstone Seminar in Prevention Science** Credits: 1
This course provides an opportunity for students to meet with prevention professionals and scholars from across campus and the community to explore current and emerging issues of prevention research and professional practice. Students must complete HDFS 880 before taking this course. Prereq: Consent of instructor
Typically Offered: Occasionally

**HDFS 990 Research and Thesis** Credits: 1 - 12
Independent research and writing for graduate students under the supervision of a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

**HDFS 999 Independent Study** Credits: 1 - 3
Directed study projects for graduate students as arranged with a faculty member. Prereq: Consent of instructor
Typically Offered: Fall, Spring, Summer

**INTERDIS COURSES (SOHE)**

**INTER-HE 201 Belonging, Purpose and the Ecology of Human Happiness: EcoYou** Credits: 3
This course explores the art and science of purposeful living by integrating academic knowledge with issues real and relevant to students’ lives including: identity and belonging; happiness, purpose and meaning; self-awareness and self-presentation; romantic, peer and family relationships; material culture, consumer behavior and financial well-being; and connections to community, culture, and society. From the microbes that inhabit our guts to political revolutions sparked by a tweet, human lives are embedded in an ecology of complex, interdependent systems. Using the lens of Human Ecology, you will address “big questions” like: How am I connected to others and to larger systems? What brings
L&S Breadth: Social Science   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

**INTER-HE 330 Practicum in Family and Consumer Education** Credits: 2
Systematic observation and involvement in family and consumer sciences instruction. Prereq: Consent of instructor
Typically Offered: Occasionally

**INTER-HE 430 Student Teaching in Family and Consumer Education** Credits: 12
Supervised student teaching at the middle and high school levels. Prereq: Consent of instructor
Typically Offered: Occasionally

**INTER-HE 650 Parent Education and Support Programs** Credits: 3
The purposes, contexts, and implementation of parenting support and education programs are studied. Some sections may include a service learning component. Prereq: HDFS 362, ED PSYCH 320 or PSYCH 560
Typically Offered: Fall, Spring

**INTER-HE 660 Foundations of Education for Work** Credits: 2 - 3
Analysis of perspectives and issues associated with the development of work-focused education policies and practice. Prereq: Senior standing
Typically Offered: Occasionally
INTER-HE 661 Organization and Operation of Education for Work Programs Credits: 3  
Procedures, policies and research associated with various systems of work-related education. This course is intended for students who have teaching experience. Prereq: Senior standing  
Typically Offered: Occasionally

INTER-HE 730 Program Development in Continuing Education Credits: 3  
Basic concepts related to effective program development. Focus on the concepts relevant to programming with adults: (1) philosophical basis for change through adult education programs, (2) programming processes, (3) community and clientele analysis, (4) program involvement, (5) program design. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

INTER-HE 742 Facilitating Learning for Adults Credits: 3  
Analysis of concepts and procedures for helping adults learn. Emphasis on the teaching-learning transactions that encourage and assist adults in their learning activities. Prereq: ELPA 746  
Typically Offered: Occasionally

INTER-HE 770 School-Community Engagement Credits: 3  
Critical examination of school-community engagement and collaboration. Examines theory and practice of mutually beneficial collaboration in diverse education settings, including leadership issues in collaborative settings, and facilitators and inhibitors to effective collaboration. Prereq: ELPA 702  
Typically Offered: Occasionally

INTER-HE 793 Research Methods Credits: 3  
Basic techniques: questionnaires, interviews, behavioral observation, sampling, experimental designs and data analysis using computer. Students learn to write a research proposal with literature review. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

INTER-HE 810 Seminar Family Ecology Credits: 3  
This seminar is focused on professional development and practice skills grounded in a human ecology perspective, which is typically seen as the engaged application of arts and sciences to issues affecting life quality. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

INTER-HE 812 Leadership and Coordination of Continuing and Technical Education Credits: 3  
Theory, research, concepts, and processes of leadership and program coordination integral to various continuing and technical education programs. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

INTER-HE 826 Evaluation for Administrative Decision Making in Education Credits: 3  
Theory and methods of evaluation for administrators. Models and techniques related to educational needs assessment, program and product development, formative and summative evaluation. Use of evaluative information for administrative decision making and administration of educational evaluation projects. Prereq: Graduate or professional standing  
Typically Offered: Occasionally
ENVIR ST  101 Forum on the Environment Credits: 1 - 2
Lectures and discussions about environmental issues. Historical and contemporary environmental impacts of
humans on the biosphere. Global futures: population, technology, societal values, resources and prospects for
sustainable management. Prereq: Open to Fr
L&S Breadth: Soc Sci or Nat Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENVIR ST  102 Climate and Climate Change Credits: 3
This course describes the basic climate principles governing the climate system. It describes the climate and
climate variability at present, climate evolution in the past, and the projected climate change into the future. The
scientific principles underlying the natural and anthropogenic greenhouse effect and climate model forecasts are
elucidated. Prereq: None
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST  106 Environmental Geology Credits: 3
Application of geology to problems resulting from the ever more intense use of the earth and its resources.
Lecture and discussion. Prereq: Not open to those who have had Geosci 101, 100, or 109. Open to Fr
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST  112 Environmental Studies: The Social Perspective Credits: 3
Importance of social factors in the generation and resolution of complex environmental problems with an
interdisciplinary perspective. Comparison of specific communities in the more and less developed areas of the
world. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST  113 Environmental Studies: The Humanistic Perspective Credits: 3
Environmental problems as approached by philosophy, literature, fine arts, history of science, and anthropology.
Reflections on the past and present situation of our species and its relationship to the rest of nature offer
suggestions toward possible alternative values for future. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENVIR ST  115 Environmental Humanities: Asian/Pacific Perspectives Credits: 3 - 4
Course offers a case-based approach to environmental studies from a humanistic perspective, taking into account
diverse and connected transnational systems of Asia; materials draw on themes like forests, water, disaster, war,
and conservation and wildlife. Course introduces disciplines in the Environmental Humanities (literature, religion,
music, etc.) through studies in tradition, theory and practice across South Asia, Southeast Asia, East Asia and
ocean and Pasifik regions including Aotearoa, New Zealand. Throughout the course we ask, how are
environmental worldviews cast as the basis for action and understanding in the present? Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

ENVIR ST  120 Introduction to the Earth System Credits: 3
Introduces students to how the Earth system works and what makes Earth livable. Through this course you will
gain a deeper appreciation for how the atmosphere, oceans, life, and earth's surface interact to shape our local,
regional and global landscapes. Many students take this course to fulfill their physical science requirement.
Others use it as a gateway to majors and careers in Geography, Environmental Studies, and Environmental
Science. Prereq: Not open to students with credit for GEOG/ENVIR ST 127
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ENVIR ST 121 Atmospheric Environment and Society Credits: 2
Changing interactions between humans, other animals and plants, and the atmospheric environment, both in time and space. Prereq: Open to Fr
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 125 Green Screen: Environmental Perspectives through Film Credits: 3
From Teddy Roosevelt's 1909 African safari to the Hollywood blockbuster King Kong, from the world of Walt Disney to The March of the Penguins, cinema has been a powerful force in shaping public and scientific understanding of nature throughout the twentieth and twenty-first century. How can film shed light on changing environmental ideas and beliefs in American thought, politics, and culture? And how can we come to see and appreciate contested issues of race, class, and gender in nature on screen? This course will explore such questions as we come to understand the role of film in helping to define the contours of past, present, and future environmental visions in the United States, and the
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

ENVIR ST 126 Principles of Environmental Science Credits: 4
This course relates principles of environmental science to our daily activities, with an eye to sustainability, conservation, and systems thinking. It introduces science as a process of inquiry and discovery rather than just a pre-established set of facts. Topics relate to energy, water, and land use, and include food, electric power, materials, buildings, transportation, and waste. Prereq: Open to Freshmen
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENVIR ST 127 Physical Systems of the Environment Credits: 5
Climatic regimes, landforms, soils, waters and life forms at the earth's surface in terms of energy-transforming processes, locational patterns, and changes through time. Prereq: Open to Freshmen & not open to those with Geog 120, 123, 124, or 125 credit or ILS 132 credit
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 139 Living in the Global Environment: An Introduction to People-Environment Geography Credits: 3 - 4
This course provides an exploration of the global and local nature of environmental problems facing us, including issues of climate change, food, energy, economic globalization, deforestation and land use change, biodiversity loss, resource scarcity and access, environmental justice, and population. Through group and individual work, this course considers how we should analyze and act on environmental problems as we confront the apparently daunting scale of such issues. The theme of this course is that what appear to be single global environmental problems are actually composed of many smaller context-specific and place dependent problems or conflicts. Through an interdisciplinary and geogra
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 153 Literature and the Environment Credits: 3
An introduction to literature in English about the natural world and humankind's relationship with it; specific topics will vary. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENVIR ST 171 Global Change: Atmospheric Issues and Problems Credits: 2 - 3
Atmospheric problems of global significance. Greenhouse warming, ozone layer, acid rain, climate change. Study based on elementary principles of atmospheric science. Systems approach applied to changing atmospheric composition. Interactions among geochemical cycles, anthropogenic inputs and other parts of the environment.
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 199 Directed Study Credits: 1 - 2
Prereq: Open to Freshmen, consent of instructor
Typically Offered: Fall, Spring, Summer

ENVIR ST 200 Special Topics in Environmental Studies Credits: 1 - 4
Topics vary each term, within the scope of the environmental physical sciences. These may encompass areas such as energy systems, earth system sciences, quantitative methods for environmental analysis, and application of scientific and engineering concepts to real-world environmental issues. Prereq: Minimum pre-calculus; concurrent enrollment in calculus recommended. Open to Fr
Typically Offered: Fall, Spring, Summer
ENVIR ST 201 Insects and Human Culture-a Survey Course in Entomology Credits: 3
Importance of insects in man's environment, emphasizing beneficial insects, disease carriers, and agricultural pests that interfere with man's food supply. Environmental problems due to insect control agents. Prereq: Open to Fr
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 213 Global Environmental Health: An Interdisciplinary Introduction Credits: 3
The course provides an introduction to the intersections of health and environment on a global scale. Exposes students to a range of problems in global environmental health, including climate change, disease ecology, and the globalization of disease. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 230 Soil: Ecosystem and Resource Credits: 3
Soils are fundamental to ecosystem science. A systems approach is used to investigate how soils look and function. Topics investigated include soil structure, biology, water, fertility, and taxonomy as well as the human impact on the soil environment. Prereq: Not open to students with credits in Soil Sci 301
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 244 The Environment and the Global Economy Credits: 3
The "economic way of thinking" about global and regional environmental issues. Topics include climate change, biodiversity preservation, ocean fisheries, environmental impacts of international trade, poverty and the environment, and sustainability. Prereq: Open to Freshmen
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 250 Introduction to Sustainability Science Credits: 3
Course introduces issues connected with "Sustainability Science," the study of coupled human-natural systems with implications for resource use, human well-being, and the environment. Methods include risk assessment, life-cycle assessment, and conceptual modeling, as well as basic background on natural systems such as climate, water, and land use, and engineered systems including energy, transportation, land use, and materials. Prereq: A sem of calculus or concurrent enrollment in Math 136, 171, 211, 221 or equiv
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENVIR ST 260 Introductory Ecology Credits: 3
For nonbiology students: the relationships of organisms and the environment. Population dynamics and community organization, human-environment relationships, action programs. Prereq: Open to Freshmen. Does not count toward Botany or Zoology major
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENVIR ST 270 Environment and Religion Credits: 3 - 4
What are sources on which members of religious communities draw in order to understand and address environmental change? This course explores how religious persons and communities confront global environmental questions and challenges today, with case studies drawn from culturally and religiously plural societies such as India and Indonesia. Introducing diverse varieties of Christianity, Islam, and Hindu and Buddhist systems, course gives overview of some approaches in the environmental humanities related to philosophy, history, sociology and anthropology, and ethics. Fulfills requirement for Environmental Studies and Religious Studies degree programs. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

ENVIR ST 307 Literature of the Environment: Speaking for Nature Credits: 3
19th and 20th century British and American literature. Prereq: So st; priority given to IES certificate students
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 309 People, Land and Food: Comparative Study of Agriculture Systems Credits: 3
Introduction to how and why humans have transformed natural landscapes around the world, including tropical deforestation. Exploration of different agricultural systems, and topics such as food security, land scarcity, bioenergy and the impacts of food production on the environment. Prereq: Sophomore standing
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
ENVIR ST 310 Challenges & Solutions in Business Sustainability Credits: 3
This course provides students with central knowledge and skills to tackle challenges at the intersection of business and sustainability. Students will study the failures in market and decision making systems that lead to sustainability challenges, and learn how to address these challenges on the policy, organizational, and individual level. Prereq: Sophomore standing
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 315 Limnology-Conservation of Aquatic Resources Credits: 2
General limnology. Physical, chemical and biological characteristics and processes of lakes. Environmental problems and rehabilitation of lakes. Prereq: Intro course in biol; intro course in chem recommended
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

ENVIR ST 324 Soils and Environmental Quality Credits: 3
Interaction of soils with environmental contaminants and the role of soils in pollution control. Prereq: Chem 103 & 104 or equiv; Jr st
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 325 Analysis of the Physical Environment Credits: 4
Selected associations of natural and human environments illustrative of the broad principles of physical geography. Practical application of data collection and the use of laboratory and field methods to Wisconsin examples employing quantitative and nonquantitative analytical methods; field trips; lab section. Prereq: Any intro crse in phy geog or phy geol or meteor or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENVIR ST 328 Environmental History of Europe Credits: 3
This class explores a new approach to a part of the world with a very old history, but one that is now as 'modern' as any. The changing, complex relations between Europeans and their environments from antiquity to the twenty-first century offer instructive comparison with American and current global environmental concerns. Approaching Mediterranean and Western civilizations from an environmental viewpoint also offers fresh perspective on these enduring cultures. Prereq: Sophomore Standing
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 331 Climatic Environments of the Past Credits: 3
Climatic change at timescales from the last 1,000,000 years to the last 1000 years. Examines how climate variability arises from interplay between external forcings, feedbacks within the earth system, and (more recently) human activity. Prereq: Atm Ocn/Geog/Envir St 121, or Geog 120, 123, 124 or 127 or Atm Ocn 100
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 332 Global Warming: Science and Impacts Credits: 3
Climate change is underway and will continue into the foreseeable future. This course offers a fundamental understanding of how and why global warming is happening, and what to expect in the future. Together, we will investigate and discuss the evidence for change, the science that explains these observations, predicted impacts on humans and ecosystems, and the societal debate over proposed solutions. Prereq: Geog/IES 120 or 127 or Atm Ocn 100 or equivalent recommended. Freshmen permitted only with consent of instructor
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENVIR ST 337 Nature, Power and Society Credits: 3
Explores the links between nature, power and society in today's world. The course considers the complex relationships between humans and the earth's resources, including food, energy, physical materials, water, biota, and landscapes; it considers issues linked to population and scarcity, resource tenure, green consumerism, political economy, environmental ethics, risks and hazards, political ecology, and environmental justice. Prereq: Sophomore standing. Not open to students who took Geog/Env 139 in 2010-11, 2011-12 or 2012-13.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 339 Environmental Conservation Credits: 4
Examines major environmental conservation approaches in the U.S. and developing countries and how they are influenced by sociopolitical factors, cultural values and scientific understandings of nature. Historical and contemporary cases are explored with emphasis on biodiversity and climate change issues. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
ENVIR ST 343 Environmental Economics Credits: 3 - 4
Microeconomic principles underlying the use of natural resources such as air, water, forests, fisheries, minerals and energy. These principles are applied in the examination of pollution control, preservation vs. development, deforestation, and other environmental issues. Prereq: AAE 215, Econ 101 or equivalent, or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENVIR ST 353 History of Ecology Credits: 3
The development of the science of ecology and related scientific issues and social attitudes, with a primary emphasis on developments from the late nineteenth century to the present. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 356 Islam, Science & Technology, and the Environment Credits: 3 - 4
Survey of Muslim religious understandings of science, technology, nature and environment. Lectures and readings present a global perspective through case studies, covering sources such as the Qur'an, theology and law, and traditions of esoteric piety (mysticism), and historical and contemporary issues like medical ethics, virtual realities, and environmental change, challenge and crisis. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

ENVIR ST 360 Extinction of Species Credits: 3
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

ENVIR ST 361 Wetlands Ecology Credits: 3
Types, origins, settings, and structure of wetlands. Physical, biological, and cultural values, uses and assessments. Physical and biological characteristics and dynamics. Protection, management and restoration. Field trips, literature review, term paper, and personal observations required. Prereq: Upper class st; basic college-level biology or equiv (such as relevant physical sciences)
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENVIR ST 367 Renewable Energy Systems Credits: 3
Students will learn about the state-of-the-art in renewable energy applications including biomass for heat, electric power and liquid fuels as well as geo-energy sources such as wind, solar, and hydro power. Students will do engineering calculations of power and energy availability of renewable energy sources and learn about requirements for integrating renewable energy sources into production, distribution and end-use systems. Prereq: College algebra, college-level physical science course
Typically Offered: Fall

ENVIR ST 368 Environmental Law, Toxic Substances, and Conservation Credits: 2
Development of and need for "environmental law"; an introduction to the legal system; public and private rights in the environment; regulation of pesticides and toxic substances; environmental legislation and rulemaking; environmental impact statements; professionals as expert witnesses. No prior knowledge of law assumed. For scientists and others dealing with environmental issues in academia, industry and government. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ENVIR ST 371 Introduction to Environmental Remote Sensing Credits: 3
Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to study the environment. Includes physical processes of electromagnetic radiation, data types and sensing capabilities, methods for interpretation, analysis and mapping, and applications. Prereq: Math 114 & Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENVIR ST 372 Intermediate Environmental Remote Sensing Credits: 3
Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to remote sensing of the environment. Includes transforms, image correction, classification algorithms and change detection, with emphasis on applications for land use planning and natural resource management. Prereq: Envir St 301 or consent of instructor, sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring
ENVIR ST 373 Nuclear Energy and the Environment Credits: 3
Fission and fusion processes, nuclear reactors, power plants, radioactivity, biological effects, radiation and thermal releases, governmental regulations' impact on society. Prereq: HS physics or chem; knowledge of basic biology or consent of instructor; not open to NEEP stdts
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENVIR ST 375 Field Ecology Workshop Credits: 3
Lecture labs wholly in field for intensive study of behavior of plants and animals and their relationship to environments and human impacts. Individual and group observations, measurements, interpretation, reports, typing personal experience with specifics to basic principles. Prereq: Some basic biology & ecology recommended; cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

ENVIR ST 377 An Introduction to Geographic Information Systems Credits: 4
Design, implementation and use of automated procedures for storage, analysis and display of spatial information. Covers data bases, information manipulation and display techniques, software systems and management issues. Case studies. Meets with Civil & Environmental Engineering 357. Prereq: Sophomore standing
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 400 Special Topics in the Environment: Biological Aspects of Envir St Credits: 1 - 4
Topics vary each term, within the scope of the environmental biological sciences. These may encompass areas such as conservation biology, environmental ecology, issues in ethnobotany and tropical ecology, environmental health, ecotoxicology, biodiversity, endangered resources, biological systems analysis, and field studies. Prereq: So st. Authorization may be required
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENVIR ST 401 Special Topics: Environmental Perspectives in the Physical Sciences Credits: 1 - 4
Topics vary each term, within the scope of the physical environmental sciences. These may encompass issues in energy resources, environmental measurement and analysis, modeling, remote sensing and GIS, environmental engineering and transportation, air and water resources, and global climate change. Prereq: So st. Authorization may be required
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENVIR ST 402 Special Topics: Social Perspectives in Environmental Studies Credits: 1 - 4
Topics vary each term, within the scope of the environmental social sciences. These may include issues in environmental policy, law, economics, land use, sustainability, food systems, energy policy, conflict resolution, environmental justice, and international development. Prereq: So st. Authorization may be required
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENVIR ST 404 Special Topics: Humanistic Perspectives in Environmental Studies Credits: 1 - 4
Topics vary each term, within the scope of the environmental humanities. These may encompass themes in environmental ethics, literature, art, film, aesthetics and design, history, and indigenous knowledge. Prereq: So st. Authorization may be required
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENVIR ST 410 Minerals as a Public Problem Credits: 3
Distribution of mineral resources; present and future problems of mineral supply; conservation of minerals, and mineral resources in relation to national and international policy. Prereq: Open to Fr
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 411 Energy Resources Credits: 3
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
ENVIR ST 430 Law and Environment: Rights and Resources Credits: 3
This class explores the burgeoning field of environmental studies through a focus on the historical development of legal rights in land and natural resources. It examines rights in natural resources in pre-modern European and non-Western traditions, traces the development of modern Anglo-American and selected global approaches to environmental law and governance, and considers the recent development of international environmental law. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENVIR ST 434 People, Wildlife and Landscapes Credits: 3
This course explores the relationship between humans and wildlife amidst diverse landscapes, both historic and contemporary, tropical and temperate. We study how humans shape wild animal populations by modifying physical environments, and by hunting, domesticating and introducing species. Prereq: Geog/Envir St 339
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 439 US Environmental Policy and Regulation Credits: 3 - 4
This course covers a broad cross-section of American environmental policy by focusing on specific statutes and policy arenas. In this course we will survey the basic elements of American environmental policy and regulation with a particular focus on the specific people, sites and scales at which environmental decision-making happens through primary-source case material. Understanding environmental outcomes in a complex society depends on observing both the structure of regulations and the geographic and social context in which such regulations emerge. This course will maintain a dual focus on (a) the legal and regulatory aspects of environmental regulation and (b) the specific geographic an
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENVIR ST 441 Environmental Ethics Credits: 3 - 4
Adequacy of ethical theories in handling such wrongs as harm to the land, to posterity, to endangered species, and to the ecosystem itself. Exploration of the view that not all moral wrongs involve harm to humans. Inquiry into the notion of the quality of life and the ethics of the "lifeboat" situation. Prereq: 3 cr philos or envir studies, or Grad st in IES
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENVIR ST 444 Practical Applications of GPS Surveying Credits: 2
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENVIR ST 449 Government and Natural Resources Credits: 3 - 4
Problems of public policy and administration for development and use of natural resources. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ENVIR ST 452 World Forest History Credits: 3
Examines world forest history, with attention to links between societal change and forest change. Examines how different peoples have used or abused the forest, how societies have struggled to establish policies governing forests, and how perceptions of forests have evolved.
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENVIR ST 460 American Environmental History Credits: 4
Survey of interactions among people and natural environments from before European colonization to present. Equal attention to problems of ecological change, human ideas, and uses of nature and history of conservation and environmental public policy. Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENVIR ST 468 Managing the Environmental Impacts of Livestock Operations Credits: 2
Introduces nonpoint pollution policies and regulations and environmental losses impacting air and water quality. Discuss management practices that influence the cycling and balance of nitrogen and phosphorus across a farm and its components (livestock, crop and soil). Prereq: Jr st
Typically Offered: Spring
ENVIR ST 469 The Making of the American Landscape Credits: 4
Surveys the historical geography and environmental history of the United States by tracing the evolution of the American landscape from precolonial times to the present, with special emphasis on teaching students skills they can use to interpret landscape history themselves. Prereq: Sophomore standing or one course in HISTORY, GEOG or ENVIR ST
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

ENVIR ST 471 Introduction to Environmental Health Credits: 3
Impact of environmental problems on human health; biological hazards to human health from air and water pollution; radiation; pesticides; noise; problems related to food, occupation and environment of the work place; accidents. Physical and chemical factors involved. Prereq: A course in biology; Jr st
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 472 Scientific Background to Global Environmental Problems Credits: 3
A one-semester course designed to provide those elements of physics, atmospheric sciences, chemistry, biology and geology which are essential to a scientific understanding of global environmental problems. Specific examples of such problems include global warming, stratospheric ozone depletion, acid rain and environmental toxins. Three lectures per week. Prereq: PHYSICS 103, 201, 207, or 247 or CHEM 103, 108, 109, 115, or 116
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENVIR ST 502 Air Pollution and Human Health Credits: 3
Toxicologic, controlled and epidemiologic studies on major air pollutants. Overview of study methods, lung physiology and pathology; air pollution sources, types, meteorology, sampling methods, controls and regulations. Prereq: Jr st, a course in biology
L&S Breadth: Biological Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 506 Modeling and Analysis of Environmental Systems Credits: 3
Systems modeling; applications to environmental problems; systems methods. Prereq: Consent of instructor
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENVIR ST 510 Ecology of Fishes Credits: 3
Interactions of fishes with their physical, chemical, and biotic environment; physiological ecology, community ecology and fisheries sciences. Lake Mendota perch fishery and Shedd Aquarium field trips. Prereq: 1 yr biol & chem & Jr st
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 511 Ecology of Fishes Lab Credits: 2
Anatomy and taxonomy of Wisconsin fishes and projects in fish ecology. Prereq: Zool 510 or con reg
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 513 Environment and Health in Global Perspective Credits: 3
Explores the historical relationships between environmental change and human health from the 17th through the 20th century. Topics include colonialism and disease, medical geography, urban pollution and reform, workplace hazards, environmental risk, and the anti-toxics and environmental justice movements. Prereq: Jr st
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 515 Natural Resources Policy Credits: 3
This course examines natural resources policy and law in the United States relating to forests, wildlife, and other natural resources. The course investigates the policy-making process and the role of science, values, property, economics, and justice in the development of federal and state resources policy. Students are trained in professional written and oral communication and ethical engagement in resources policy and administration. Prereq: F&W ECOL 379, or 410, or consent of instructor
General Education: COM B L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENVIR ST 520 Bioclimatology Credits: 3
How climate systems and biological organisms operate and interact at the global scale and the implications of this for climate change, ecosystem ecology and human land use. Prereq: Junior standing and ATM OCN 101, ATM OCN 252 or ATM OCN 323, and BIOLOGY 152
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
ENVIR ST 523 Philosophical Problems of the Biological Sciences Credits: 3
Problems raised by genetics, evolutionary theory, and taxonomy: patterns of explanatory force and dispensability of teleology; objectivity of taxonomy. Prereq: 3 cr of philos or 3 cr in a biological science
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 528 Past Climates and Climatic Change Credits: 3
Climatic change throughout geologic time, especially in the last 10 millennia; mechanisms of change, evidence, and criteria, paleogeography and paleoclimatology, climate models. Prereq: Jr st or one year calculus-based college physics or introduction to weather and climate; or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 534 Environmental Governance: Markets, States and Nature Credits: 3
This class is designed to help students answer real-world questions of how the environment is managed and governed through state policy, economics, and social institutions. We will cover strategies within and outside of the formal institutions of government, and extend the discussion to the commodification of nature and the use of science to understand and govern the environment. The last third of the class will consist of students engaging with case studies of environmental governance in water, carbon, species, and urban sustainability. Prereq: GEOG/ENVIR ST 339 or GEOG/ENVIR ST 439 or F&W ECOL/ENVIR ST 515
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ENVIR ST 535 Atmospheric Dispersion and Air Pollution Credits: 3
Physical principles of atmospheric transport processes. Variation of transport in time and place. Local and regional concentrations of pollutants. Environmental implications of air pollution and control strategies. Prereq: Math 212, Physics 202, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENVIR ST 537 Culture and Environment Credits: 4
Geographic approaches to culture-nature relationships, including human perception of, use of, and adaptation to the physical environment, with emphasis on traditional subsistence systems; selected topics from contemporary and historical sources. Prereq: Geog/IES 339 or equiv
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENVIR ST 539 Air Resources Science and Policy Credits: 3
Overview of modern scientific methods, state-of-understanding, and current policy problems related to weather prediction, climate change, air pollution, and energy use. Problem sets, discussion, final paper with drafts. Prereq: So st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ENVIR ST 540 Sociology of International Development, Environment, and Sustainability Credits: 3
Sociological analysis of relationships among economic growth, environmental sustainability and social justice in the developing world. Considers frameworks for understanding poverty, hunger, educational and technological inequality, and the impact of globalization on prospects for socially and ecologically sustainable development. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENVIR ST 556 Remote Sensing Digital Image Processing Credits: 3
Techniques of enhancement and quantification of remote sensing imagery. Emphasis on processing and analyzing data gathered by airborne and satellite sensors. Techniques to quantitatively analyze data from photography, electro-optical scanners, satellite systems, and radar and passive microwave systems. A 5-week practicum with applications to: agriculture and forestry, geology and soils, water quality, and urban and regional planning. Prereq: Civ Engr/Envir St/Forestry 303 or authorization
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ENVIR ST 557 Development and Environment in Southeast Asia Credits: 3
Examines the political, socio-cultural, economic and ecological aspects of contemporary development and human-environment relations in mainland Southeast Asia, applying a critical and theoretically informed perspective, and focusing largely on rural issues. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ENVIR ST 561 Energy Markets Credits: 3
Energy resources are an essential element of the world's business, political, technical and environmental landscape. Analytic tools provided by the discipline of economics expands our understanding of this critical issue. Energy supply markets reviewed include both fossil fuels and renewable resources. Energy demand sectors include residential, commercial, industrial and transportation. Electricity represents an intermediate energy market. The interactions among these markets participants indicate how scarce resources are allocated among competing needs in the world economy. Prereq: ECON 101, ECON 111, or AAE 215
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 575 Assessment of Environmental Impact Credits: 3
Overview of methods for collecting and analyzing information about environmental impacts on agricultural and natural resources, including monitoring the physical environment and relating impacts to people and society. Prereq: Jr st. Authorization may be required
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

ENVIR ST 600 Environmental Studies Major Capstone Credits: 3
Investigation of a selected complex interdisciplinary environmental problem, e.g., desertification; energy in an age of scarcity; world hunger. Readings, papers, individual and team research, intensive discussions. Prereq: Senior standing & enrollment in the Envir Studies Certificate Program; authorization required
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENVIR ST 601 Systems Thinking and Sustainable Businesses Credits: 3
Introduces students to the concept of systems thinking so as to allow them to use systems to bring about large scale social change, both within the business community and within our societal infrastructure. Prereq: Admitted bus stdt with Jr or Sr st or envir studies stdt
Typically Offered: Spring

ENVIR ST 602 Sustainability in Practice: Capstone Credits: 3
An integrative capstone experience involving interdisciplinary teams applying the triple bottom line principals of sustainability to local, regional and global challenges. Prereq: Junior or Senior standing seeking Sustainability Certificate, or consent of instructor
Typically Offered: Spring

ENVIR ST 651 Conservation Biology Credits: 3
Application of ecological principles and human dimensions to the conservation of biological diversity. Topics: biodiversity science; conservation planning; population ecology; habitat loss, species exploitation, invasive species, pollution; human attitudes and activities as they affect the biosphere; approaches to monitoring interventions. Prereq: An ecology crse (eg, Botany/Zoology 460)
General Education: QR-B L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 652 Decision Methods for Natural Resource Managers Credits: 3 - 4
Applications of quantitative methods, including optimization and simulation, to the management of natural resources, especially forests. Prereq: Math 211 or equiv & Comp Sci 132 or equiv
General Education: QR-B L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ENVIR ST 668 Green Politics: Global Experience, American Prospects Credits: 3
An examination of the writings and activities of green parties and movements around the globe in order to assess the potential of an explicit, radical environmental politics for the United States. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ENVIR ST 671 Energy Economics Credits: 3
The method, application, and limitations of traditional economic approaches to the study of energy problems. Topics include microeconomic foundations of energy demand and supply; optimal pricing and allocation of energy resources; energy market structure, conduct, and performance; macro linkages of energy and the economy; and the economics of regulatory and other public policy approaches to the social control of energy. Prereq: (Senior standing and ECON 101 or AAE 215) or graduate standing
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENVIR ST 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
**ENVIR ST 682 Senior Honors Thesis** Credits: 3  
Prereq: Cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

**ENVIR ST 691 Senior Thesis** Credits: 1 - 3  
Prereq: Cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

**ENVIR ST 692 Senior Thesis** Credits: 1 - 3  
Prereq: Cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

**ENVIR ST 695 Applications of Geographic Information Systems in Natural Resources** Credits: 3  
Course has four components: 1) Detailed review of GIS concepts; 2) Case studies; 3) GIS implementation methods; 4) Laboratory to provide “hands-on” GIS experience.  Prereq: Land Arc/Envir St/Civ Engr 655 or Geog 377 or cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**ENVIR ST 699 Directed Study** Credits: 1 - 3  
Prereq: Cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

**ENVIR ST 707 Professional Skills for Global Systems Analysis** Credits: 1  
Trains students in interdisciplinary skills needed to research environmental sustainability and vulnerability in linked human, non-human natural systems. Instruction involves communication simulations, facilitation training, cross-disciplinary listening exercises, and other hands-on activities. Content is linked with Environmental Studies 506.  Prereq: Con reg in Envir St 506 or cons inst  
Typically Offered: Not Applicable

**ENVIR ST 710 Challenges & Solutions in Business Sustainability** Credits: 3  
This course provides students with central knowledge and skills to tackle challenges at the intersection of business and sustainability. Students will study the failures in market and decision making systems that lead to sustainability challenges, and learn how to address these challenges on the policy, organizational, and individual level.  Prereq: Graduate or professional standing  
Typically Offered: Spring

**ENVIR ST 713 Studies in Environment and Health** Credits: 1  
Advanced readings in primary and secondary literature of environment and health, with emphasis on current historiographic issues.  Prereq: Grad st, or con reg in Hist Med 513 or cons inst  
Typically Offered: Occasionally

**ENVIR ST 717 Water Resources Management Practicum Planning Seminar I** Credits: 1  
This is the first of two seminars used for planning the activities of the Summer Session Water Resources Management Practicum (ENVIR ST 719).  Prereq: Consent of instructor  
Typically Offered: Fall

**ENVIR ST 718 Water Resources Management Practicum Planning Seminar II** Credits: 2  
This seminar is used for planning the field work, analysis and reporting of the Summer Session Water Resources Management Practicum (ENVIR ST 719).  Prereq: Adv Grad standing or consent of instructor  
Typically Offered: Spring

**ENVIR ST 719 Water Resources Management Summer Practicum** Credits: 4  
Interdisciplinary team of students and staff working with agency personnel, citizen groups, and/or private sector representatives on the analysis of a contemporary, problem-oriented water resource issue. Physical, biological, economic and social aspects of the issue analyzed. Comprehensive written report results, practicum's findings and management recommendations.  Prereq: Envir St/Civ Engr/Urb R Pl 718 or consent of instructor  
Typically Offered: Summer
ENVIR ST  724 Agroecosystems and Global Change  Credits: 3
Impacts of global change drivers (climate change, atmospheric chemistry, bioenergy, urbanization, policy) on
agroecosystems and their associated goods and services; environmental impacts of agricultural land use and
feedbacks to climate; modeling approaches; critical review of current scientific literature.  Prereq: Graduate st;
coursework in either college-level biology or ecology; 1 sem college-level chemistry or physics; or cons inst
Typically Offered: Occasionally

ENVIR ST  740 Health Impact Assessment of Global Environmental Change  Credits: 3
Covers contemporary methods of impact assessment in a framework to address global environmental health
threats (e.g., global climate change, deforestation and biodiversity loss, and urban sprawl). Issues dovetail well
(but do not overlap) with Introduction to Environmental Health.  Prereq: Graduate standing or consent of
instructor
Typically Offered: Occasionally

ENVIR ST  745 Meteorological Satellite Applications  Credits: 2 - 3
Use of satellite imagery and measurements in meteorological research and operations; orbital characteristics;
navigation; instrumentation.  Prereq: Atm Ocn 640 or 1 yr calc-based college physics & Math 234
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENVIR ST  750 Problems in Oceanography  Credits: 3
Introduction to techniques used in the study of the biology, chemistry, geology, and physics of the marine
environment.  Prereq: Cons inst
Typically Offered: Occasionally

ENVIR ST  761 Colloquium in Air Pollution  Credits: 1
Prereq:  Grad st
Typically Offered: Occasionally

ENVIR ST  772 Practicum in Transportation Management and Policy  Credits: 3
Integrative capstone course in transportation management and policy. Interdisciplinary team experience in the
application of theoretical knowledge and analytical tools for developing policy and making management decisions
on "real-world" problems.  Prereq:  Grad st or cons inst
Typically Offered: Spring

ENVIR ST  806 Local & Regional Approaches to Sustainability & Vulnerability  Credits: 3
Evaluates what local-scale, place-based and social science / humanities approaches offer to analyses of
environmental change, sustainability and vulnerability. Stresses interdisciplinary, both through content and
through assignments that require students to bring their own disciplinary training and work together in teams.
Prereq:  Envir St 506 & Envir St 707 or cons inst, and con reg in Envir St 807
Typically Offered: Not Applicable

ENVIR ST  807 Professional Skills for Regional and Local Sustainability  Credits: 1
Trains students in the skills needed to research environmental vulnerability and sustainability from a regional or
local perspective. Training in qualitative methods, cross-disciplinary presentation, and other hands-on activities.
Content will be linked with Envir St 806.  Prereq:  Envir St 506 & Envir St 707 or cons instr, and con reg in Envir
St 806
Typically Offered: Not Applicable

ENVIR ST  808 Integrated Research Methods & Prof Skills: Humans & the Global Env  Credits: 4
Trains students to conduct research, review alternatives, and promote solutions to environmental problems
through team-based projects. Teams integrate research across scales and disciplines and learn to present and
publicize their ideas to peers, media, and the public.  Prereq:  Envir St 506, Envir St 707, Envir St 806, Envir St
807 or cons inst
Typically Offered: Not Applicable

ENVIR ST  809 Introduction to Energy Analysis and Policy  Credits: 3
Interdisciplinary seminar for the Energy Analysis and Policy Curriculum. Strategy and policy problems in energy
policy, both national and international.  Prereq:  Grad st & admission to Energy Anal and Policy curric or cons inst
Typically Offered: Fall
ENVIR ST 810 Energy Analysis Seminar Credits: 1 - 3
Interdisciplinary seminar for the Energy Analysis and Policy Curriculum. Quantitative energy content and energy flows as an aid to problem analysis and policy formulation. Prereq: Grad st & admission to Energy Anal and Policy Curric or cons inst
Typically Offered: Spring

ENVIR ST 821 Resources Policy Issues: Regional and National Credits: 2 - 3
Resource policy issues frequently faced by local and state governments and the federal government. Emphasis: (1) techniques for analysis of resource issues; (2) methods of collating knowledge from natural and social science disciplines which can make meaningful contributions to resolution of resource issues; (3) identification and analysis of strategic points of decision making in the legislative and executive branches of government; and (4) the application of planning techniques for accomplishing resource goals. Prereq: Cons inst
Typically Offered: Occasionally

ENVIR ST 823 Science and Environment Communication Credits: 3
Course uses available scholarship and commentary to track the evolution of mass media coverage of science and the environment. Emphasis on how journalists utilize evidence, the influence of scientific and journalistic norms on stories, and the effects of mass media on science and environment messages to the public. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ENVIR ST 843 Land Use Policy and Planning Credits: 3
Critical evaluation and analysis of land use policies and programs in relation to comprehensive planning and growth management issues in the U.S. The role of legislative and judicial processes and emerging public land use social values and philosophies in the development, regulation, and effectuation of innovative land use policies. Alternative land policy and growth guidance systems of select European countries. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ENVIR ST 865 Water Resources Institutions and Policies Credits: 3
Governmental processes and policies for water resources management: major substantive problems and issues; political processes of decision making; problems of governmental organization and intergovernmental arrangements. Prereq: Grad st
Typically Offered: Occasionally

ENVIR ST 866 Global Environmental Governance Credits: 3
In-depth examination of the political and policy challenges posed by global environmental degradation. Analysis of international institutions for managing the global environment. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ENVIR ST 881 Benefit-Cost Analysis Credits: 3
This course will present the welfare economics underpinnings for evaluating the social benefits and costs of government activities. Issues such as uncertainty, the social discount rate, and welfare weights will be discussed; case studies from the environmental, social policy, and agricultural areas will be studied. Prereq: Grad st, Pub Affr 818 & 880 or Pop Hlth 875 & at least one crse in econ or cons inst
Typically Offered: Fall

ENVIR ST 900 Seminar Credits: 1 - 3
Special topics selected with each offering. Prereq: Grad st; authorization may be required
Typically Offered: Fall, Spring

ENVIR ST 901 Environmental Studies Orientation Field Trip and Seminar Credits: 1 - 2
Field trip to introduce new graduate students in Environmental Studies to natural resource management problems and research. Seminar to acquaint students with teaching and research activities of faculty involved with IES. Prereq: Grad st in IES or cons inst
Typically Offered: Fall

ENVIR ST 911 Limnology and Marine Science Seminar Credits: 1
Sections in various fields of zoological research. Prereq: Grad st in limnology & marine sci grad prgm or cons inst
Typically Offered: Occasionally
ENVIR ST 917 Public Participation for Planning and Policy Making Credits: 3
Examines public participation for planning and policymaking in both urban and natural environments; considers different types of participation from agency consultation to negotiation; designing, conducting, and evaluating citizen participation are major features. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ENVIR ST 922 Historical and Cultural Methods in Environmental Research Credits: 3
This course introduces graduate students from a wide array of departments and programs to different disciplinary and interdisciplinary methods for studying past environmental change and the human cultural contexts within which such change occurs. The course explores the disparate forms of evidence that can be used to reconstruct past environmental changes and their human meanings. The course also strives to build a strong sense of community among graduate students and faculty members at UW-Madison who share an interest in past environmental change by creating a context within which students from different departments and programs can work together while also getting to know faculty members.
Typically Offered: Spring

ENVIR ST 923 Seminar-Land Problems: Institutional Development Credits: 2 - 3
Land tenure and utilization research and policy problems. Prereq: Grad st
Typically Offered: Occasionally

ENVIR ST 925 Seminar-Climatology Credits: 1 - 2
Historical climatology with emphasis on the last few centuries. Prereq: Grad st
Typically Offered: Occasionally

ENVIR ST 950 Environmental Monitoring Seminar Credits: 1
Current research and literature dealing with environmental remote sensing and geographic information systems. Prereq: Grad st
Typically Offered: Occasionally

ENVIR ST 951 Conservation of Biodiversity Credits: 3
This online course will cover theory, advanced research, and the professional practice of conservation of biodiversity in interdisciplinary, international perspective. The course will be divided into approximately 50% biodiversity science and 50% human dimensions of biodiversity conservation, fully integrated with each other in readings, hands-on online simulations, peer-to-peer discussions, and writing assignments. Within lectures, students will learn about biodiversity science; human activities that threaten biodiversity; conservation project planning; conservation interventions against habitat loss, species exploitation, invasive species, and pollution; human values, attitudes, and activi
Typically Offered: Spring

ENVIR ST 953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

ENVIR ST 970 Colloquium in Transportation Management and Policy Credits: 1
Current issues, case studies, research, and literature dealing with transportation management and policy development. Prereq: Grad st or cons inst
Typically Offered: Fall, Spring

ENVIR ST 972 Conservation Planning Credits: 4
Preparation of students to plan, monitor and evaluate the effectiveness of conservation projects and programs. Systematic and adaptive processes of conservation planning will be learned through lectures, readings, discussions, and work in small groups to prepare a conservation plan and/or review case study projects (e.g., a protected area, a landscape) with a conservation organization. Prereq: Students must be accepted into the Environmental Conservation professional master's program
Typically Offered: Summer
ENVIR ST 974 Environmental Conservation Cohort Seminar Credits: 1
Professional development course for incoming Environmental Conservation graduate students. Introduces students to important aspects of communication, collaboration, and professional practice as they relate to Environmental Conservation. Prereq: Students must be accepted into the Environmental Conservation professional master's program
Typically Offered: Summer

ENVIR ST 975 Environmental Conservation Leadership Seminar Credits: 1
Professional development course for Environmental Conservation graduate students. Introduces students to important aspects of communication, negotiation, and cross-cultural professional practice as they relate to Environmental Conservation. Prereq: Students must be accepted into the Environmental Conservation professional master's program and have completed Envir St 974
Typically Offered: Summer

ENVIR ST 976 The Practice of Conservation Biology and Sustainable Development Credits: 1
A weekly series of presentations by persons who have direct experience in the practice of conservation biology and sustainable development. Presenters may be students, faculty staff or agency persons. Prereq: Grad st in IES program or cons inst
Typically Offered: Fall

ENVIR ST 977 Sustainable Development - Integral Perspective Credits: 3
This interdisciplinary graduate seminar has four main objectives: 1) review core concepts and history of sustainable development; 2) introduce students to innovative frameworks to sustainable development, including integral framework, institutional analysis, and the often overlooked cultural, philosophical and psychological underpinnings of environmental decision-making; 3) analyze case studies and examples through the lens of the frameworks presented; 4) provide a forum for graduate students to present their own research interests and examples regarding sustainable development. Some of the examples and case studies discussed are from Latin America, but will also include some from Wisconsin
Typically Offered: Fall

ENVIR ST 978 Environmental Conservation Tools Modules Credits: 1
Tools modules for Environmental Conservation graduate students. Modules will provide training in specific tools and methods related to environmental conservation. Topics may include GIS, conservation finance, conservation governance & institutions, biodiversity monitoring, and science communication & environmental mediating. Prereq: Students must be accepted into the Environmental Conservation professional master's program
Typically Offered: Spring

ENVIR ST 979 Environmental Conservation Professional Practice Credits: 3
This course provides an online environment for the development and practice of the skills needed to be an environmental conservation professional and leader. It will help students analyze options and make good professional conservation judgments in complex and uncertain environmental, political, and economic settings. It will also give students the tools needed to assess and revise those judgments. The course will include exercises on the politics of environmental decisions, internal and external communication strategies, and program development and assessment strategies. The course builds on earlier classes' discussions of online communication and presentation skills. Prereq: Enrolled in
Typically Offered: Spring

ENVIR ST 980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface systems, involving physical geochemical and biological processes, and including interactions with human systems. Prereq: Grad st
Typically Offered: Occasionally

ENVIR ST 990 Research Credits: 1 - 12
Prereq: Grad st
Typically Offered: Fall, Spring, Summer

ENVIR ST 993 Approaches to Interdisciplinary Environmental Research Credits: 2
A course to assist students undertaking interdisciplinary research. Preparation of a proposal or manuscript to professional standards. A review of other topics relevant to interdisciplinary work. Formal presentation of a research plan or other product to peers for review and evaluation. Prereq: Land resources major. Authorization may be required
Typically Offered: Occasionally
ENVIR ST 999 Advanced Independent Study Credits: 1 - 3
Prereq: Grad st
Typically Offered: Fall, Spring, Summer
AFRICAN 100 Introduction to African Cultural Expression Credits: 3
An introduction to current research in African cultural studies, ranging from various literary genres and uses of discourse; to diverse media including screen media, music, cartoons, and journalism; and to other forms of popular expression like soccer and drama. Through an introduction to these forms, students will also gain an overview of the diverse methods used by scholars in this field, such as textual analysis, film criticism, ethnomusicology, discourse analysis, and ethnography; and to the cultural diversity of Africa and its diasporic cultures. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 129 Africa on the Global Stage Credits: 3 - 4
Explores the interplay between Africa and the World from the 19th century to the present, covering subjects such as the slave-trade, repatriation, Africanizing of culture in the Americas and Europe, the spread and revival of world religions, colonialism, global capitalism, the rise of global popular culture such as pop music and video films, environmental concerns and global epidemics. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

AFRICAN 201 Introduction to African Literature Credits: 3
Survey of African literary traditions and introduction to literary analysis. Prereq: None
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFRICAN 210 The African Storyteller Credits: 3
The oral tradition and the written word; the composition of stories, relationship between performer and audience, and transmission of tradition in various African societies. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 211 The African Autobiography Credits: 3
The importance of autobiography in depicting social change in the lives of Africans. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFRICAN 212 Introduction to African Popular Culture Credits: 3 - 4
This course will use aspects of popular culture (such as popular literature, music, television, news media, movies, etc.) to introduce students to the African continent and its cultures, people, and languages. Students will be exposed to a variety of texts from different regions on the continent, learning about differences and similarities across the continent at the level of aesthetics and context. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 220 HipHop, Youth Culture, and Politics in Senegal Credits: 3
This course explores how HipHop, a quintessential manifestation of African American culture, is adopted and adapted by African youth to fight for social justice and democracy in their local contexts, while at the same time constructing a diasporic African sensibility and "cultural citizenship" that transcends boarders and oceans. Beginning with the history, culture, and politics of HipHop in the U.S., we compare and contrast HipHop’s development in Africa with specific attention to Senegal. Students will develop a familiarity with youth culture and politics in Senegal and study the ongoing process of cross-cultural flows and hybridity. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
AFRICAN 230 Introduction to Yoruba Life and Culture Credits: 3
Introduction to some aspects of the life and culture of Yoruba-speaking people of West Africa, Cuba, Brazil, and Haiti, including the importance of Yoruba culture in the Americas. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 231 Introduction to Arabic Literary Culture Credits: 3
Survey course on Arabic cultural production. Through the course, students will develop a historic and critical understanding of Arabic literary traditions, as well as related musical and visual arts, up to the twenty-first century. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 232 Introduction to Swahili Cultures Credits: 3
A multi-disciplinary perspective on the identities, history, language, literature, and artistic heritage of Swahili speakers. Prereq: Open to first year students
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFRICAN 233 Global HipHop and Social Justice Credits: 3
Can HipHop culture help produce a more just world? If so, what theory and praxis best advance this aim? These are the questions that drive this conceptual course. Our critical interrogation of the relationship between HipHop and social justice considers the culture from its U.S. Black Power era underpinnings to its disparate contemporary "glocal" manifestations. We begin by asking what is "HipHop," what is "social justice," and what is their relationship, and proceed to consider how HipHop can be an effective force for social justice and what obstacles mitigate against this potential. These discussions will develop familiarity with important concepts in Black studies and social theory such a
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 270 The Hero and Trickster in African Oral Traditions Credits: 3
Two major characters in African oral tradition as treated in narrative, epic and heroic poetry. Prereq: None
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 277 Africa: An Introductory Survey Credits: 4
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 297 African and African-American Linkages: An Introduction Credits: 4
Analysis of retention of African elements in African-American oral, written, and material culture. Social, cultural, and political issues regarding race, self-definition, and self-determination in both Africa and North America will be examined. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 300 African Literature in Translation Credits: 3
Introduction to the literature, oral or written, of a coherent cultural area of Africa, for those for whom texts in the original language are not accessible. Prereq: Open to Fr with cons inst. Not recommended for grad stdts
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 301 Introduction to African Linguistics Credits: 3
African languages, including typology, comparative studies, sociolinguistic factors, and the relation of language to literature. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 303 African Literature and Visual Culture Credits: 3
An introduction to literature and visual culture of Africa in various periods and places; specific topics will vary. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
AFRICAN 321 First Semester Arabic Credits: 4 - 5
An important Afro-Asiatic language; description, drills, reading, speaking. Prereq: 4 cr for Grads, 5 cr for Undergrads (4 cr only Summer). Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 322 Second Semester Arabic Credits: 4 - 5
Continuation of 321. Prereq: African 321 or consent of instructor. 4 credits for Grads, 5 credits for Undergrads (4 cr only Summer). Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 323 Third Semester Arabic Credits: 4
Advanced grammar and conversational practice, reading contemporary Arabic literature and other writings. Prereq: African 322 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 324 Fourth Semester Arabic Credits: 4
Continuation of 323. Prereq: African 323 or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 325 Colloquial Arabic Credits: 2
Prereq: African 321 & 322 or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 326 Colloquial Arabic Credits: 2
Prereq: African 325
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 327 Elementary Summer Immersion Arabic Credits: 8
Elementary level Arabic language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Arabic immersion program. Prereq: Students must be admitted to the summer Arabic immersion program in order to enroll
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

AFRICAN 331 First Semester Swahili Credits: 5
For beginning learners of Standard Swahili; emphasis on proficiency through speaking, listening, reading, and writing, and on communication in cultural context. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 332 Second Semester Swahili Credits: 4 - 5
Continuation of 331. Prereq: African 331 or consent of instructor. 4 credit for Grads, 5 credit for Undergrads (4 cr only Summer). Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 333 Third Semester Swahili Credits: 4
Continuation of AFRICAN 332. Four-skills approach (speaking, listening, writing, reading) centered around authentic texts, recordings, and images. Grammar review, concerted vocabulary expansion, and intensive practice. Prereq: AFRICAN 332
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 334 Fourth Semester Swahili Credits: 4
Continuation of 333. Prereq: African 333 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 335 First Semester-A Language of Southern Africa Credits: 5
For beginning learners of a Southern African language; emphasis on proficiency through speaking, listening, reading, and writing, and on communication in cultural context. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 336 Second Semester-A Language of Southern Africa Credits: 4 - 5
Continuation of 335. Prereq: African 335 or cons inst. 4 cr for Grads, 4 cr for Undergrads (4 cr only Summer). Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
AFRICAN 337 Third Semester-A Language of Southern Africa  Credits: 4
Continuation of 336; More advanced speaking knowledge and grammatical analysis. Structure, reading, drills.
Prereq:  African 336 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 338 Fourth Semester-A Language of Southern Africa  Credits: 4
Continuation of 337. Prereq:  African 337 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 353 Third Semester Xhosa Credits: 4
More advanced texts and emphasis on structural analysis and conversational practice. Prereq:  African 352 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 354 Fourth Semester Xhosa Credits: 4
Continuation of 353. Prereq:  African 353 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 361 First Semester Hausa Credits: 5
For beginning learners of Hausa; emphasis on proficiency through speaking, listening, reading, and writing, and on communication in cultural context. Prereq:  None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 362 Second Semester Hausa Credits: 4 - 5
Continuation of 361. Prereq:  African 361 or cons inst. 4 cr for Grads, 5 cr for Undergrads (4 cr only Summer). Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 370 Islam: Religion and Culture Credits: 3 - 4
The emergence and development of Islam; schism; theology; asceticism; speculative and popular mysticism; literatures in diverse Islamic languages. Prereq:  Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 371 First Semester Yoruba Credits: 5
For beginning learners of Standard Yoruba; emphasis on proficiency through speaking, listening, reading, and writing, and on communication in cultural context. Prereq:  None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 372 Second Semester Yoruba Credits: 5
Continuation of AFRICAN 371. For beginning learners of standard Yoruba; emphasis on proficiency through speaking, listening, reading, and writing, and on communication in cultural context. Prereq:  AFRICAN 371
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 373 Third Semester Yoruba Credits: 4
Advanced grammar and conversational practice. Reading contemporary Yoruba literature and other writings. Prereq:  African 372 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 374 Fourth Semester Yoruba Credits: 4
Continuation of AFRICAN 373, intended to continue to develop and refine competence and performance in linguistic skills that were developed in the first three semesters of Yoruba courses. Prereq:  AFRICAN 373
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 391 First Semester-A Language of West Africa Credits: 4 - 5
e.g. Ewe, Igbo, Mende, Twi, Yoruba: Speaking knowledge, description, structure, drills. Prereq:  4 cr for Grads, 5 cr for Undergrads (4 cr only Summer). Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 392 Second Semester-A Language of West Africa Credits: 4 - 5
Continuation of 391. Prereq:  African 391 or cons inst. 4 cr for Grads, 5 cr for Undergrads (4 cr only Summer). Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
AFRICAN 393 Third Semester-A Language of West Africa Credits: 4
Continuation of 391 and 392. Prereq: African 392 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 394 Fourth Semester-A Language of West Africa Credits: 4
Continuation of 393. Prereq: African 393 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 399 Directed Study of an African Language Credits: 3
Directed language study for students experienced in language self instruction. The instructor will continue to consult with the student and monitor progress. Prereq: African 302 & cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

AFRICAN 402 Theory of African Literature Credits: 3 - 4
Approaches to the analysis of African oral narrative performances, heroic poetry, epic, and the genres of written literature: Aesthetic, symbolic, and structural analysis and their interrelationships. Prereq: African 201 or 210 or 211, or Grad st, or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 403 Theories of African Cultural Studies Credits: 3
This course is a study of the many ways of understanding the entire spectrum of culture and cultural production, circulation, consumption, and meaning making in Africa. It foregrounds material and imaginative cultural forms and practices—their origins, languages, contents, forms, functions, genres, audiences—as well as how these have been conceived and theorized by practitioners and scholars in the context of Africa and the world. The course will also examine the uses to which particular meanings of culture and its forms are put, by whom, and to what purpose, and how meanings are fought over, reshaped, and reconstituted, and under what conditions those are or can be possible. This is what “t
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 405 Topics in African Cultural Studies Credits: 3
This course examines various mediated cultural forms such as broadcasting, news, performance, music, film, or social media created and used and across regions and countries in Africa, addressing issues such as cultural identity, nation building, constraints on expression, access, and reception, and the interaction of global and African cultural forms. Prereq: African 201, 210, 211, 212, or 277.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 406 Topics in African Literature Credits: 3
Provides a conceptual focus for the study of various forms of literature from around the African world. Literary forms studied may include novels, drama, poetry, short stories, cinema, and more. Depending on the conceptual focus, texts from a particular region, period, or language may be stressed, or they will coalesce around certain themes, such as modernity, cultural identity, nation building, ideology, globalization, and more. Prereq: Junior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 407 Topics in African Languages Credits: 3
Topics in African languages, especially sociocultural linguistics and critical applied linguistics in Africa. Prereq: AFRICAN 201 or 301 or graduate student standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

AFRICAN 409 Topics in US and Global Black Music Studies Credits: 3
This course will introduce students to the phenomenon of "musical blackness" as a US-based, transnational cultural form and practice. In each class (topics will vary), students will learn about how US-based, racially specified black musical forms, together with global forms also identified as "black," were constituted as part of the legacies of European colonial encounter and US imperial expansion; the categories of "traditional" music and popular style took shape and have been experienced as something part and parcel of this historical process. By giving close consideration to genre, style, and performance practice, the course will help students to understand the many ways in which musical
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 411 African Poetry Credits: 3 - 4
Analysis of oral and written poetry from various African cultures. Prereq: Jr st
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
AFRICAN 412 Contemporary African Fiction Credits: 3 - 4
A critical study of the major works. Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

AFRICAN 413 Contemporary African and Caribbean Drama Credits: 3 - 4
A critical study of the major works. Prereq: Junior standing
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

AFRICAN 427 Intermediate Summer Immersion Arabic Credits: 8
Intermediate level Arabic language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Arabic immersion program. Prereq: AFRICAN 322, or AFRICAN 327, or equivalent (two semesters of Arabic language). Students must be admitted to the summer Arabic immersion program in order to enroll.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

AFRICAN 435 Advanced Studies in Swahili Language-Grammar Credits: 3
Reading, conversation and composition beyond the fourth semester level with emphasis on linguistic structure and the grammatical analysis of texts appropriate to the level of the student. Prereq: African 334 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

AFRICAN 436 Advanced Studies in Swahili Language-Readings Credits: 3
Reading, conversation and composition beyond the fourth semester level with emphasis on the literary tradition of the language and concentration on texts appropriate to the level of the student. Prereq: African 435 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

AFRICAN 440 African/Francophone Film Credits: 3
Studies the construction of narratives in cinema and literature; teaches to analyze and write about cinema; explores links between cinema and national or regional politics and ideology; examines spectatorship in relation to questions of identity formation. Prereq: French 271
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

AFRICAN 445 Readings in Advanced Arabic Texts Credits: 3
Selection from Quranic and post-Quranic Arabic texts to meet the needs of the students. Prereq: Grad st and cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

AFRICAN 446 Readings in Advanced Arabic Texts Credits: 3
Prereq: Grad st or cons inst required
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

AFRICAN 451 Lusophone African Literature Credits: 3
Chronological and thematic survey of major trends, authors, and works of Lusophone Africa since 1936. Prereq: Portuguese 221 & 311/312 or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

AFRICAN 453 Modern African Literature in English Credits: 3 - 4
Chief emphasis on modern African poetry, novel, drama, and short story.
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

AFRICAN 471 Oral Traditions and the Written Word Credits: 3 - 4
Analyses and comparisons of African oral narrative-performances and African written literatures. Prereq: African 210, 402, or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

AFRICAN 475 Fifth Semester Yoruba Credits: 3
Advanced linguistic structures, literature and poetry. Introduction to Yoruba cultures in the works of Wole Soyinka. Prereq: African 374 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall
AFRICAN 476 Sixth Semester Yoruba Credits: 3
More complex linguistic structure. Proverbs. Yoruba cultural background in the works of Wole Soyinka. Prereq: African 475 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFRICAN 491 Fifth Semester, A Language of Central Africa Credits: 3
Advanced linguistic structures and literature. Prereq: African 318 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 493 Fifth Semester, A Language of Southern Africa Credits: 3
Advanced linguistic structures and literature. Prereq: African 338 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 494 Sixth Semester, A Language of Southern Africa Credits: 3
Advanced linguistic structures and literature. Prereq: African 493 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 495 Fifth Semester, A Language of Northern Africa Credits: 3
Advanced linguistic structures and literature. Prereq: African 368 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 496 Sixth Semester, A Language of Northern Africa Credits: 3
Advanced linguistic structures and literature. Prereq: African 495 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 497 Fifth Semester, A Language of West Africa Credits: 3
Advanced linguistic structures and literature. Prereq: African 394 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 498 Sixth Semester, A Language of West Africa Credits: 3
Advanced linguistic structure and literature. Prereq: African 497 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 500 Language and Society in Africa Credits: 3 - 4
Language use in African societies; multilingualism; language in politics, religion, socialization.
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 501 Structure and Analysis of African Languages Credits: 3 - 4
Emphasis on phonetics (including transcription), and on theories and problems of phonology, morphology, and syntax. Prereq: African 301 for Undergrads; none for Grads
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 503 African Linguistic Structures-Morphology and Syntax Credits: 3 - 4
Morphological and syntactic characteristics of various African languages, with emphasis on noun-class systems, pluralization, verbal systems and word formation. Prereq: African 501 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 527 Advanced Summer Immersion Arabic Credits: 8
Advanced level Arabic language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Arabic immersion program. Prereq: AFRICAN 324, or AFRICAN 427, or equivalent (four semesters of Arabic language). Students must be admitted to the summer Arabic immersion program in order to enroll. A placement test may be required for admission
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer
AFRICAN 605 Advanced Topics in African Cultural Studies  Credits: 3
This course will introduce students to foundational texts in the study of modern Africa and the social, political, and economic contexts of the continent's cultural production and productivity. We will organize our conceptual explorations around such interesting issues as the African encounter with Europe, anticolonialism, race, racialism, and subjectivity, African and European languages and epistemology, transformations in gendered structures, and the environment, and the circulation and consumption of cultural forms and practices. This course will encourage students to think about the long histories and theories of cultural production and practices in Africa, the local/global provenance of
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 606 Advanced Topics in African Literature  Credits: 3
A critical and historical study of selected topics in African literary studies. Prereq:  Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 609 Advanced Topics in Global Black Music Studies  Credits: 3
This course will examine key critical concepts in the cultural study of racially specified "black music" as it has developed as a global phenomenon. Typically organized as a seminar, the course will pair major theories in black cultural analysis (postcolonial criticism, diaspora theory, global capitalism, etc.) with a body of literature pertaining to a particular musical topic, geographic area, or tradition. This pairing will provide the means by which students will develop critical skills for undertaking cultural music analysis. Throughout the semester, students will be encouraged to think about the long histories and theories of cultural production and practices in global Africa, the local
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 669 Special Topics  Credits: 3
Prereq:  Cons chair
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 670 Theories and Methods of Learning a Less Commonly Taught Language  Credits: 2
This course is both theoretical and practical. Through reading, discussion, and research, students will explore theories of second language acquisition (SLA) and relate them to self-instructional methods. Each student will test and/or modify one or more theories/methods by putting these self-instructional methods into practice in order to learn a less commonly taught language (LCTL). Students will share their findings in writing and during class discussions, and write a final paper assessing their learning outcomes. This course is intended for those with prior experience in the study of African languages, or advanced study of other foreign languages. Prereq:  Students must enroll concurrent
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFRICAN 671 Multilanguage Seminar  Credits: 4
Through weekly meetings, students discuss their use of self-instructional methods to learn a less commonly taught language (LCTL), get feedback on individualized syllabi and assessment plans, and present progress reports orally and in writing. Homework includes continuous self-instruction in the chosen LCTL including reading, writing, oral, and listening skills; work with a conversation partner; and cultural knowledge. Prereq:  AFRICAN 670, concurrent enrollment is allowed
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFRICAN 681 Senior Honors Thesis  Credits: 3
Prereq:  Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 682 Senior Honors Thesis  Credits: 3
Prereq:  Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 697 Directed Study of a Less Commonly Taught Language  Credits: 3 - 5
Monitored self-instruction of a less commonly taught language. Students will meet individually with the instructor. Requires development of an individualized study plan, bibliographic and online research, work with conversation partners online or in the community, and regular self-assessments. Prereq:  Must be taken concurrently with African 670 during the first enrollment.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
AFRICAN 698 Directed Study  Credits: 1 - 6
Prereq: Graded on a Cr/N basis; requires consent of instructor and Junior or Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFRICAN 699 Directed Study  Credits: 1 - 6
Prereq: Graded on a lettered basis; requires cons inst and Jr or Sr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFRICAN 700 Reading and Writing African Cultural Studies  Credits: 3
This is a course on academic writing, designed to guide graduate students toward a full understanding of the craft of marshaling evidence to support an argument in the humanities, particularly African cultural studies. It covers the norms and expectations that inhere in academic writing as well as the mechanics of producing original scholarship. Prereq: Graduate or professional standing
Typically Offered: Fall

AFRICAN 701 Advanced Topics in African Linguistics  Credits: 3
Advanced study of a topic in African linguistics. Content will vary with each offering. Prereq: Sr major or Grad & cons inst
L&S Level: Intermediate/Advanced  Typically Offered: Occasionally

AFRICAN 702 African Verbal Stylistics  Credits: 3
Linguistic approaches to the vrbl arts of Africa, oral, written, and in performance. Prereq: Grad st
Typically Offered: Occasionally

AFRICAN 703 Topics in Teaching African Languages  Credits: 1
Theories and teaching methodologies for second language acquisition plus practical classroom techniques for teaching and directing programs in African languages. Prereq: Graduate or professional standing
Typically Offered: Fall

AFRICAN 704 Topics in African Cultural Studies Pedagogy  Credits: 1
This course is an exploration of key thematics in the teaching and understanding of African cultural studies. It is organized centrally around methodology and pedagogy: what is, how we know, name, and categorize; and how we teach, analyze, and communicate. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

AFRICAN 705 Teaching Portfolio  Credits: 2
This course will develop graduate students' metacognitive skills and critical thinking about teaching as a scholarly activity, through the creation of a teaching portfolio that documents the ideas and objectives that have informed their teaching to date and potential future teaching. Designed for students who teach foreign languages but open to graduate students in other humanities disciplines. Prereq: Consent of instructor
Typically Offered: Fall, Spring

AFRICAN 802 Theory and Criticism of African Literature  Credits: 3
Through a wide range of theoretical texts, students will be trained to reflect critically on the ongoing conversation about cultural production and literary criticism in the context of African studies. Prereq: Graduate or professional standing
Typically Offered: Every Other Fall

AFRICAN 803 Theories of African Cultural Studies  Credits: 3
This course is a study of the many ways of understanding the entire spectrum of culture and cultural production, circulation, consumption, and meaning making in Africa. It foregrounds material and imaginative cultural forms and practices-their origins, languages, contents, forms, functions, genres, audiences-as well as how these have been conceived and theorized by practitioners and scholars in the context of Africa and the world. The course will also examine the uses to which particular meanings of culture and its forms are put, by whom, and to what purpose, and how meanings are fought over, reshaped, and reconstituted, and under what conditions those are or can be possible. This is what "t
Typically Offered: Fall, Spring

AFRICAN 901 Seminar in Modern African Literature  Credits: 3
Special topics. Prereq: Grad st
Typically Offered: Occasionally
AFRICAN 902 Seminar in Traditional African Lit Credits: 3
Topics in oral art forms. Prereq: Grad st
Typically Offered: Occasionally

AFRICAN 903 Seminar in African Linguistics Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

AFRICAN 905 Seminar in African Cultural Studies: Topics Credits: 3
This seminar examines various mediated cultural forms such as broadcasting, news, performance, music, film, or social media created and used and across regions and countries in Africa, addressing issues such as cultural identity, nation building, constraints on expression, access, and reception, and the interaction of global and African cultural forms. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

AFRICAN 926 Seminar in Research Methods in African Cultural Studies Credits: 3
Field methods, techniques, and analytical approaches for students doing research in African cultural studies. Topics vary but may include ethnography, narrative analysis, critical discourse analysis, and other research methods. Prereq: Graduate or professional standing
Typically Offered: Every Other Spring

AFRICAN 935 Seminar in South African Oral & Written Literatures Credits: 3
One or more problems. Prereq: Grad st
Typically Offered: Occasionally

AFRICAN 955 Seminar in African Mythology Credits: 3
Prereq: African 201 or 440 or 470 or 471
Typically Offered: Occasionally

AFRICAN 983 Interdepartmental Seminar-African Studies Credits: 3
Interdisciplinary inquiry in African society and culture. Prereq: Grad st or cons inst
Typically Offered: Occasionally

AFRICAN 990 Thesis Credits: 1 - 9
Prereq: Graduate or professional standing
Typically Offered: Occasionally

AFRICAN 999 Independent Reading and Research Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

AFRO-AMERICAN STUDIES

AFROAMER 151 Introduction to Contemporary Afro-American Society Credits: 3
Survey of the characteristics and problems of Afro-Americans in contemporary society. Prereq: Open to Fr
Ethnic Studies: Yes   L&S Breadth: Social Science   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

AFROAMER 154 Hip-Hop and Contemporary American Society Credits: 3
The aesthetic and political evolution of hip-hop culture and its relationship to contemporary social issues. Prereq: None
Ethnic Studies: Yes   L&S Breadth: Humanities   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

AFROAMER 155 They: Race in American Literature Credits: 3
The evolution of stereotypes. The literary manifestations of the assumptions black and white American writers hold toward members of the opposite race. Prereq: Open to Fr and So only
Ethnic Studies: Yes   L&S Breadth: Literature   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally
AFROAMER  156 Black Music and American Cultural History Credits: 3
This course examines the interaction between Afro-American musical culture and its historical context, with an emphasis on the period from 1920 to the present. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

AFROAMER  199 Directed Study Credits: 1 - 3
Prereq: Written cons inst only. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER  204 Introduction to Visual Cultures Credits: 3
This is a foundation course in the transdisciplinary field of Visual Cultures. It examines theories and technologies of vision and visuality in their disparate manifestations over time and cultures and geographies. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER  220 HipHop, Youth Culture, and Politics in Senegal Credits: 3
This course explores how HipHop, a quintessential manifestation of African American culture, is adopted and adapted by African youth to fight for social justice and democracy in their local contexts, while at the same time constructing a diasporic African sensibility and "cultural citizenship" that transcends boarders and oceans. Beginning with the history, culture, and politics of HipHop in the U.S., we compare and contrast HipHop’s development in Africa with specific attention to Senegal. Students will develop a familiarity with youth culture and politics in Senegal and study the ongoing process of cross-cultural flows and hybridity. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER  221 Introduction to Black Women’s Studies Credits: 3
This course will provide students with an overview of the field of Black women’s studies. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER  222 Introduction to Black Women Writers Credits: 3
An introduction to the writings of Afro-American women from the nineteenth to the twentieth century. Fiction, autobiography, non-fiction prose, and poetry will be read and discussed. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER  225 Introduction to African American Dramatic Literature Credits: 3
Introduction to the history of African American theater and major African American playwrights and actors. Prereq: First yr stdts only
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER  227 Masterpieces of African American Literature Credits: 3
Analysis of major works of African American fiction, drama, poetry and autobiography. Attention given to historical, cultural and biographical contexts. Prereq: Open to Fr and So only
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER  231 Introduction to Afro-American History Credits: 3
Survey from the African beginnings to the present day. Focus on slave trade and slavery; major black figures of the past; social, economic, and political trends within the black community. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
AFROAMER  233 Global HipHop and Social Justice  Credits: 3
Can HipHop culture help produce a more just world? If so, what theory and praxis best advance this aim? These
are the questions that drive this conceptual course. Our critical interrogation of the relationship between HipHop
and social justice considers the culture from its U.S. Black Power era underpinnings to its disparate contemporary
"glocal" manifestations. We begin by asking what is "HipHop," what is "social justice," and what is their
relationship, and proceed to consider how HipHop can be an effective force for social justice and what obstacles
mitigate against this potential. These discussions will develop familiarity with important concepts in Black studies
and social theory such a
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

AFROAMER  241 Introduction to African Art and Architecture  Credits: 3
This course examines the rich heritage of African arts and architecture as they shape and have been shaped by
the histories and cultural values (social, political, religious, philosophical, and aesthetic) of African peoples, both
past and
present, on the continent where humanity began. It includes an historical overview of selected artistic traditions
from different parts of the continent from 26,000 BCE to the 21st century and thematic/cultural case studies:
artists and
aesthetics; textiles, decorative, and personal/body arts; architecture; and individual artists.  Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER  242 Introduction to Afro-American Art  Credits: 3
Historical survey of Afro-American art. Beginning with the African heritage and concluding with creativity of the
1970's, it examines the evolution of Afro-American art. Attention to the aesthetic sensibilities of diverse styles as
well as the social significance of Black art within the art arena.  Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically
Offered: Fall, Spring

AFROAMER  260 Latin America: An Introduction  Credits: 3 - 4
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-
Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin
America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform;
labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER  265 African-American Autobiography  Credits: 3
Autobiographies of major Afro-Americans studied in depth to locate the constants and variables in the Black
American experience. Focus on the variety of individual responses to conditions in the United States.  Prereq:
Freshman or Sophomore status for the honors offering
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically
Offered: Occasionally

AFROAMER  267 Artistic/Cultural Images of Black Women  Credits: 3
Cultural images by and about Black women; feminine creativity in the arts within their historical, cultural, social,
and political contexts.  Prereq: Open to first year students
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically
Offered: Fall, Spring

AFROAMER  271 Selected Topics in African American Culture  Credits: 3
Introductory level course on specific topics in African American culture.  Prereq: Open to freshmen
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically
Offered: Fall

AFROAMER  272 Race and American Politics from the New Deal to the New Right  Credits: 3
Survey of the decisive role played by race in American politics, 1932-present. Focus on origins and
accomplishments of "the Second Reconstruction"; Black Power and white backlash; contemporary racial politics
and issues.  Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically
Offered: Spring
AFROAMER 275 Science, Medicine, and Race: A History Credits: 3
Surveys the medical and scientific constructions of categories of race, placing the development of racial theories in a broad social and political context. The course will pay particular attention to the importance of racial science in slavery and colonialism. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall

AFROAMER 277 Africa: An Introductory Survey Credits: 4
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 297 African and African-American Linkages: An Introduction Credits: 4
Analysis of retention of African elements in African-American oral, written, and material culture. Social, cultural, and political issues regarding race, self-definition, and self-determination in both Africa and North America will be examined. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Spring

AFROAMER 302 Undergraduate Studies in Afro-American History Credits: 3
In-depth treatment of a key theme in black historical studies. Prereq: So st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 303 Blacks, Film, and Society Credits: 3
Study of the interpretations of the Afro-American past conveyed via theatrical films and television; relationship to other images of blacks found throughout the popular culture; relationship to societal trends. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

AFROAMER 308 Black Music (1920-Present): Rhythm Section and Combos Credits: 2
Introduction to the history of jazz; traces Black American music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER 309 Black Music (1920-Present): Vocalist/Trombone/Misc Instrumental Credits: 2
Introduction to the history of jazz: traces Black American music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER 310 Black Music (1920-Present): The Trumpet Credits: 2
Introduction to the history of jazz: traces Black American Music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER 311 Black Music (1920-Present): The Saxophone Credits: 2
Introduction to the history of jazz: traces Black American music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER 318 Cultural Cross Currents: West African Dance/Music in the Americas Credits: 3
The influence of traditional West African dance/music heritage in historical, artistic, social contexts in the development of new hybrid forms of music/dance created by cross-pollination of cultures of Africans, Europeans and indigenous peoples in the New World. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

AFROAMER 321 Afro-American History Since 1900 Credits: 3 - 4
Survey of African American history from 1900 to the present. Topics covered include segregation, the Civil Rights Movement, the political, social and cultural changes of the late 20th century, and the Obama presidency. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring
AFROAMER 322 Afro-American History to 1900 Credits: 3 - 4
Survey of African American history from its roots in Africa to the end of the 19th century. Topics considered include the slave trade, the political and cultural practices of enslaved communities, forms of resistance, Reconstruction, and systems of segregation. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER 323 Gender, Race and Class: Women in U.S. History Credits: 3
Historical interplay of racism and sexism in the lives of Black and White women of different class backgrounds in the United States. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 324 Black Women in America: Reconstruction to the Present Credits: 3
Explores African American women's experience from waning days of slavery to present. Topics include slavery, emancipation, reconstruction, segregation, migration, urban and rural poverty, civil rights, nationalism, feminism and sexual politics. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 326 Race and Gender in Post-World War II U.S. Society Credits: 3
Assesses how race and gender (as well as socio-economic status, age, sexuality, region, etc.) shaped the experiences and options of African Americans, especially women, in U.S. society from WW II to the present. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 333 Black Feminisms Credits: 3
Uses an interdisciplinary framework to examine the key assumptions, debates, and silences in contemporary black feminist thought. Prereq: Sophomore standing, a Gen&WS course, an AfroAmer course or consent of instructor
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER 337 The Harlem Renaissance Credits: 3
Black literature and culture during the 1920's. Focus on unique Black literary expression of era, historical background, esthetics, polemical essays. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 338 The Black Arts Movement Credits: 3
Focuses on the notion of blackness as it is developed in the poetry and drama of key figures of the 1960s Black Arts Movement. Emphasizes the emergence of a critical discourse specific to a "new" black aesthetic. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 347 The Caribbean and its Diasporas Credits: 3
Major topics in the history of Caribbean societies from the European conquest to the present. Emphasis on colonial rule, slavery, and the diaspora communities created by Caribbean peoples in the United States and Europe. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 367 Art and Visual Culture: Women of the African Diaspora and Africa Credits: 3
This course focuses on the art and visual culture by/or pertaining to women throughout the African Diaspora and Africa. Though the focus is on 10th century art by black women, it will go into visual culture (art objects, photographs, images, dress, culturally-coded representation) concerning black women historically. Prereq: Afro-Amer 242; majors only; So st or cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
AFROAMER  393 Slavery, Civil War, and Reconstruction, 1848-1877 Credits: 3 - 4
African-American slavery and its impact on mid-19th century social, political, and economic life; the causes, course, and consequences of the Civil War; the rise and fall of postwar Reconstruction and non-racial citizenship; the impact of these histories on contemporary American society.  Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring

AFROAMER  400 Music Cultures of the World: Africa, Europe, the Americas Credits: 3
Explores the performance, transmission, and consumption of traditional and popular musics of Africa, Europe, and the Americas. Employs musical-analytic and critical approaches to trace transnational musical circulation.  Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER  413 Contemporary African and Caribbean Drama Credits: 3 - 4
A critical study of the major works.  Prereq: Junior standing
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER  443 Mutual Perceptions of Racial Minorities Credits: 3
Survey course on the mutual perceptions of primarily people of African and Asian ancestry. It focuses on how these groups evaluate perceive and interact with one another and others such as Native Americans, whites and Hispanics. Social psychological perspectives are highlighted as is an international overview.  Prereq: Afro-Amer 151 or 673
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit
Typically Offered: Fall

AFROAMER  456 Soul Music and the African American Freedom Movement Credits: 3
Focus on the place of music, musicians and the music industry in the African American Freedom Movement from the 1950s to the mid-1970s. Emphasis on the role of the black church, the organizing tradition, and the transition from Civil Rights to Black Power.  Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER  469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations.  Prereq: Consent of department
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFROAMER  501 19th Century Afro-American Literature Credits: 3
Historical and critical analysis of the poetry, fiction, and drama of 19th century African American writers. Also focuses on the essays of major African American intellectuals such as W.E.B. DuBois and Anna Julia Cooper.  Prereq: Junior standing & 3 credits intermediate literature
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER  509 Seminar in Afro-American Music History and Criticism Credits: 3
Introduction to historical research in and critical interpretation of Afro-American music. Consideration of standard musical and critical sources.  Prereq: Cons inst or Grad st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER  519 African American Political Theory Credits: 3 - 4
Explores a range of theories that African Americans have drawn upon to cope with and ameliorate their political circumstances in the United States within the specific parameters of political theory.  Prereq: One crse in political theory, moral philos or Afro-Amer studies highly recommended
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER  521 African American Families Credits: 3
Historical background; variations in contemporary family patterns; courtship and marriage, reproduction, and socialization stresses; "culture of poverty" theories; sources of stability and change.  Prereq: Junior standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
AFROAMER 523 Race, American Medicine and Public Health Credits: 3
The course will provide historical perspectives on current dilemmas facing black patients and health care professionals. Prereq: Jr or Sr st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER 525 Major Authors Credits: 3
Intensive literary criticism of the works of selected authors. Emphasis on fiction, but non-fiction when appropriate. Works of one or two authors. Prereq: Junior standing & minimum of 2 courses in literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 567 History of African American Education Credits: 3
An examination of the social, economic, political, and cultural issues influencing the education of Black Americans from the early nineteenth century to the 1960s. Prereq: Jr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFROAMER 605 Critical and Theoretical Issues in Afro-American Literature Credits: 3
A problem oriented course designed to focus on critical and theoretical writings about literature by major 20th century African-American writers. Students will be encouraged to test certain prevailing theories of African-American literature against their own readings of primary and secondary sources and to develop their ideas in a research paper. Prereq: Junior standing and 6 credits of literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER 624 African American Women's Activism (19th & 20th Centuries) Credits: 3
Examines Black women's struggles for racial justices; reconsiders conventional notions of leadership, politics and protest. Topics include abolitionism, anti-lynching campaigns, woman suffrage, labor movement, club movement, cultural expressions, civil rights protest, Black feminism/womanism, poverty and welfare rights, environmental racism, etc. Prereq: So st; instr permission required
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 625 Gender, Race and the Civil Rights Movement Credits: 3
This course focuses on the emerging field of gender studies in the scholarship on the post-World War II civil rights movement in the United States. Prereq: Jr st; instr permission required
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 628 History of the Civil Rights Movement in the United States Credits: 3
Civil rights history from 1930-1970. Legal, historical and economic origins of the civil rights movement. Study of the movement's impact on United States culture, politics, and international relations. Prereq: Jr or Sr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 631 Colloquium in Afro-American History Credits: 3
Readings, discussion, and research seminar for advanced students in Afro-American History. Prereq: Jr or Sr st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 643 Selected Topics in African Diaspora Art History Credits: 3
Art history of a specific African cultural tradition (eg. Yoruba, Kongo, Fon, Akan) and its transformation in the Caribbean, Central and South America in response to new social, historical, and hegemonic forces. Prereq: Afro-Amer 241, 242, 243 or consent of instructor
Ethnic Studies: Yes  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER 669 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
AFROAMER 671 Selected Topics in Afro-American History Credits: 3
An intensive analysis of specific themes in the Black American experience. Subjects vary with the instructor.
Prereq: Jr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 672 Selected Topics in Afro-American Literature Credits: 3
An intensive analysis of specific themes in the Afro-American experience. Subjects vary with instructor.
Prereq: Junior standing. Students wanting credit in English must have 6 credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 673 Selected Topics in Afro-American Society Credits: 3
An intensive analysis of specific themes in the Afro-American experience. The subjects vary with the instructor.
Prereq: Jr st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 674 Selected Topics on Afro-American Artists Credits: 3
Works of Black artists in the U.S. discussed historically in terms of movements which they created and in terms of trends evolving on an international scale. Jr st and cons inst.
Prereq: Jr st and cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 675 Selected Topics in Afro-American Culture Credits: 3
An intensive analysis of specific themes in the Afro-American experience.
Prereq: Varies with topic
Ethnic Studies: Yes  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AFROAMER 677 Critical and Theoretical Perspectives in Black Women's Writings Credits: 3
Analyses and interpretations of literary works by black women writers through historical, philosophical, political, feminist, and other contemporary critical methods.
Prereq: Undergrads: 2 crses in Afro-Amer lit above intro level, or equiv in another dept of lit. No prereq for Grads
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AFROAMER 678 Modern/Contemporary Art of Nigeria and the African Diaspora Credits: 3
This seminar will examine the history of modern and contemporary art in Nigeria and the African diaspora. It will analyze trans-cultural developments in paintings, sculpture, and other media, as it engages globalization, colonialism, Euro-primitivist modernism, postmodernism, postcolonialism, and feminism.
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER 679 Visual Culture, Gender and Critical Race Theory Credits: 3
Examines tensions between visual and verbal representations that variably construct and negotiate power relations in racialized human experience.
Prereq: 3 crses at 300 level or above in any one of the following areas: Afro-Amer studies; art; art hist; com arts; curric & instr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AFROAMER 681 Senior Honors Thesis Credits: 3
Prereq: Hon candidates & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER 682 Senior Honor Thesis Credits: 3
Prereq: Hon candidates & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER 691 Senior Thesis Credits: 2 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AFROAMER 692 Senior Thesis Credits: 2 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
AFROAMER 699 Directed Study in Afro-American Studies Credits: 1 - 6
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AFROAMER 790 Research and Thesis Credits: 1 - 12
Prereq: Masters st and cons inst
Typically Offered: Occasionally

AFROAMER 801 Historiography, Theory and Methods in Visual Culture Credits: 3
Prepares student for graduate work in the transdisciplinary study of Visual Cultures by building on the knowledge, theories, and methods that are fundamental to the discipline. It will develop skills in critical reading, research, analysis, writing, and oral presentation. Prereq: Grad st & cons inst
Typically Offered: Fall

AFROAMER 802 Visual Cultures: Topics in Visual Cultures Credits: 3
Content will vary to facilitate in-depth engagement of critical facts, theories, and images in specific areas of specialization. Prereq: Graduate standing & consent of instructor
Typically Offered: Fall, Spring

AMERICAN INDIAN STUDIES

AMER IND 100 Introduction to American Indian Studies Credits: 3
Focus is history, social organization, political experience, artistic expression of North American Indians, using methods and materials from a number of disciplines as an introduction to the interdisciplinary field. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AMER IND 172 Literatures of Native America Credits: 3
Introduction to the oral and written literatures of the peoples of native North America. An engagement with texts across historical periods, tribal groups, and regions to examine forms such as oratory, sermon, testimony, autobiography, and contemporary poetry and novels. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AMER IND 199 Directed Study Credits: 1 - 3
Independent study for freshmen and sophomores in collaboration with a faculty member. Prereq: Open to Fr and So only; cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AMER IND 246 Literature by American Indian Women Credits: 3
Presents a broad range of literatures from diverse Native traditions and eras, to provide students with a basic knowledge of major issues affecting and best-known texts by American Indian women authors. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AMER IND 250 Indians of Wisconsin Credits: 3
Introduces students to the various American Indian Nations within Wisconsin's borders with an emphasis on their history, culture, and sovereignty. Examines individual tribes and bands as well as common issues that affect tribal and non-tribal people in Wisconsin. Prereq: Open to all undergraduates
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AMER IND 274 Indigenous Literature of the Great Lakes Credits: 3
A study of the literature and cultural expression of peoples indigenous to the Great Lakes of North America. Close critical examination of formal aesthetics, literary history, and contemporary issues in oral tradition, autobiography, drama, poetry, novel, and film. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
AMER IND 275 American Indian Oral Literatures Credits: 3
A study of American Indian oral literature including literature from Wisconsin tribes or from other regions such as Southwest or Great Plains. This course emphasizes Native American storytellers. Prereq: 6 credits of introductory literature or consent of instructor. Open to Freshmen
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

AMER IND 301 First Semester Ojibwe Credits: 3
Introduction to the Ojibwe language, spoken and written, with emphasis on oral tradition and extensive study of grammar. Prereq: Open to Fr
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

AMER IND 302 Second Semester Ojibwe Credits: 3
Continuation of Ojibwe language study, with an emphasis on traditional winter cycle myths. Prereq: Amer Ind 301. Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

AMER IND 314 Indians of North America Credits: 3
Description and analysis of native cultures, and the role of environmental and historical factors in North America. Prereq: So st or cons inst
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

AMER IND 320 Native Peoples of the Southwest Credits: 3
Overview of Indian Peoples and cultures of the "Southwest" from historic times to present, including discussion of contemporary issues impacting tribes in the southwestern United States. Prereq: Open to all undergraduates
Ethnic Studies: Yes L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

AMER IND 325 American Indians in Film Credits: 3
A critical examination of the portrayal of the American Indian in film, including documentaries and films made by Native filmmakers. Prereq: Amer Ind 100, Com Arts 350 or cons inst
Ethnic Studies: Yes L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

AMER IND 353 Indians of the Western Great Lakes Credits: 3
Description and analysis of Indian cultures in the area around the western Great Lakes, with special emphasis on traditional cultures of the Indians in Wisconsin. Prereq: Anthro 100, 104 or cons inst
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

AMER IND 354 Archaeology of Wisconsin Credits: 3
Introduces students to the archaeological evidence for the diverse Native American cultures of Wisconsin over the past 12,000 years. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

AMER IND 355 Archaeology of Eastern North America Credits: 3
Reviews the archaeological evidence pertaining to native North American lifeways of the eastern woodlands of North America from the earliest arrival of humans more than 12,000 years ago through sustained contact with Europeans. Prereq: Jr st, Anthro 102 or 112, or cons inst
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

AMER IND 359 American Indian Art History: Contemporary Issues Credits: 3
A thematic introduction to contemporary (1960 - present) Native North American art drawing from historic (pre and post-contact) precedents. Topics are generated from the conceptual themes of contact, conflict, exchange, appropriation and re-appropriation of American Indian imagery, materials, and ideas. Prereq: Open to Fr
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
AMER IND 371 Survey of North American Indian Languages Credits: 3
Overview of native languages of North America, including topics such as history, distribution, diversity, government policy, language endangerment, elaboration of cultural domains, language and worldview, speech styles, language structure (phonology, morphology, grammatical categories), performance (narrative, song), writing systems.
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

AMER IND 431 American Indian Folklore Credits: 3
An introduction to the genres of American Indian Folklore. Special attention is given to creation stories, trickster tales, and the relationship between folklore and historical memory. Prereq: Jr st & one of the following: Anthro 314 or 344; Folklore 100 or 230 or 320; or cons inst
Ethnic Studies: Yes  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AMER IND 437 American Indian Women Credits: 3
Examines and interprets the roles of American Indian women in traditional societies, and in contemporary North America. Prereq: 1 crse in Amer Ind St, Anthro 314 or Women St 223, 101, or 102
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AMER IND 444 Native American Environmental Issues and the Media Credits: 3
Explores public understanding and media coverage of Native American environmental issues including treaty rights, air and water quality, land-into-trust, and sacred sites. Analysis of organizational and structural constraints of media coverage relating to issues of sovereignty and intergovernmental relationships. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

AMER IND 450 Issues in American Indian Studies Credits: 3
Content varies depending on instructor. Special focus on American Indian thought and perspectives on subjects in the arts and sciences. Prereq: Consent of instructor
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AMER IND 467 Contemporary American Indian Literature Since 1953 Credits: 3
A study of American Indian literary and cultural expression since 1953, the year of federal "termination" of Native nations and their subsequent revival. Close critical examination of historical and contemporary themes in autobiography, drama, poetry, and novel. Students who have taken English 650 prior to fall 2014 may not enroll in this course. Prereq: English 172 or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

AMER IND 474 Ethnobotany Credits: 3 - 4
Study of the interactions between human cultures and plants. Topics include: traditional resource management and agriculture; crop domestication, evolution, and conservation; archaeobotany; indigenous knowledge; folk taxonomy; plants in symbolism and religion; dietary patterns; phytochemistry; global movement of plants and peoples. Prereq: A five credit course in botany or biology (e.g., Botany 130, Biology 151) or cons inst
Ethnic Studies: Yes  L&S Breadth: Biological or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

AMER IND 490 American Indian History Credits: 3 - 4
Prereq: Jr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

AMER IND 522 American Indian Families Credits: 3
Interdisciplinary examination of American Indian families in historical and contemporary contexts. Emphasizes the changing experience and structure of Native families in response to changing political, economic, social, and cultural pressures and policies over the past 200 years and contemporary challenges. Prereq: Junior standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
**AMER IND 578 Poverty and Place** Credits: 3
The allocation of economic and social rewards in the United States; emphasis on persistently poor regions and communities; analysis of selected minority groups and their poverty statuses; poverty programs and their consequences for structural and cultural changes. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**AMER IND 658 American Indian Affairs** Credits: 2 - 3
Contemporary concerns and conditions of American Indians examined in historical, cultural and legal perspective. Prereq: Jr st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**AMER IND 699 Directed Study** Credits: 1 - 3
Independent study for junior, senior and graduate students in collaboration with a faculty member. Prereq: Jr, Sr or Grad st, and cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**AMER IND 941 Indians and Empires** Credits: 3
Examining the centuries of imperial competition in Native America, this seminar explores recent developments in early American Indian history. Prereq: Cons inst
Typically Offered: Occasionally

**AMER IND 942 American Indian History, 1800-present** Credits: 3
A readings course on American Indian resistance, adaptation, and revival during the U.S. National period. Prereq: Cons inst
Typically Offered: Occasionally

**ANTHROLOGY**

**ANTHRO 100 General Anthropology** Credits: 3
General understanding of humans in relation to cultures, evolutionary development and racial diversity, capacities for society, and the development of the world’s major cultures. Prereq: Open to Fr. Not open to stdts with a prior coll anthro crse
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**ANTHRO 102 Archaeology and the Prehistoric World** Credits: 3
Introduction to prehistoric world from origins of human culture to the beginnings of written history as revealed by archaeological research at great sites and ruins around the globe. Archaeological analyses of famous prehistoric sites as case studies to illustrate concepts and techniques used by archaeologists in their efforts to understand the rise, florescence, and demise of vanished societies. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**ANTHRO 104 Cultural Anthropology and Human Diversity** Credits: 3
Introduction to cultural anthropology for non-majors; comparative cross-cultural consideration of social organization, economics, politics, language, religion, ecology, gender, and cultural change. Includes 25% coverage of U.S. ethnic and racial minorities. Prereq: Open to Fr. Not for cr for those who have taken Anthro 204
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**ANTHRO 105 Principles of Biological Anthropology** Credits: 3
Genetic basis of morphological, physiological and behavioral variations within and between human populations, and their origins and evolution. Prereq: Open to Fr with HS biology or cons inst
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**ANTHRO 120 Freshman/Sophomore Seminar in Anthropology** Credits: 3
Intensive study of a problem in human variability through study of nontechnical materials. Emphasis on acquiring anthropological concepts through discussion and direct experience of ethnographic, archaeological, or human physical evidence. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ANTHRO 211 Global Language Issues  Credits: 4  
A series of modules, each showcasing one language and its culture. Each module tackles a major issue about language, such as extinction and revival, language and nationhood, how widely and deeply languages differ, language and wordview, writing systems and literacy, language discrimination and inequality.  Prereq:  Open to Fr  
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ANTHRO 212 Principles of Archaeology  Credits: 3  
This course introduces students to the methods, historical development, and scientific principles of archaeology. Through a combination of lecture, discussion, and laboratory activities, students discover how archaeologists generate and interpret information about the human past. The course familiarizes students with scientific inquiry and provides a foundation for pursuing advanced archaeological courses and field research.  Prereq:  Open to All Undergrads  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 237 Cut 'n' Mix: Music, Race, and Culture in the Caribbean  Credits: 3  
Explores the history and culture of the Caribbean by focusing on its musics, both religious and secular. Special attention will be directed to the impact of colonialism on the emergence of racially stratified societies. Music will also enable us to investigate the concepts of diaspora and creolization. Other topics include: gender and sexuality, the role of technology in the production and distribution of music, music and politics, the impact of tourism, and the global impact of Caribbean musics.  Prereq: None  
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ANTHRO 260 Latin America: An Introduction  Credits: 3 - 4  
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 264 Dimensions of Material Culture  Credits: 4  
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di  
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ANTHRO 277 Africa: An Introductory Survey  Credits: 4  
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure.  Prereq:  Open to Fr  
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 300 Cultural Anthropology: Theory and Ethnography  Credits: 3  
Survey of cultural anthropology with emphasis on ethnographic description, methodology, and contemporary theory. Course focuses on both humanistic and social scientific approaches to human sociocultural diversity.  Prereq:  So st or cons inst  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 301 Introduction to Linguistics: Descriptive and Theoretical  Credits: 3  
Elementary theory and practical work in phonetics, phonology, morphology, and syntax, with attention to formal grammar.  Prereq:  Open to Fr. Stdts may not receive cr for both Linguis 101 & 301  
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ANTHRO 302 Hominoid Evolution Credits: 3
The evolution of the Hominioidea is reconstructed from direct and indirect evidence. Cladistic and phylogenetic analyses are used to study the relationships among species. Interpretations of the fossil record are presented from a historical perspective, focusing on the hominoid-hominid transition. Prereq: Anthro 105 or 107
L&S Breadth: Biological or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 303 Human Skeletal Anatomy Credits: 4
A comprehensive examination of skeletal anatomy at both the gross and histologic levels; methods for the archaeological identification of skeletal fragments; criteria for the estimation of age, sex, stature, and other aspects of forensic anthropology. Lecture and lab. Prereq: Anthro 105, 107, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 304 Heredity, Environment and Human Populations Credits: 3
Cultural and ecological factors influencing the composition and structure of human population; expression and distribution of genetic characters within and between populations; racial differences, race formations; constitutional studies, mating systems and their genetic consequences. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 307 Urban Anthropology Credits: 3
An integrated anthropological view of the city and urbanization as a human and cultural phenomenon, including major theories and concrete data from both 'first', 'second' and 'third' worlds, emphasizing the continuity of urban development from the first cities until now. Prereq: Anthro 104 or 204 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 309 Prehistoric Europe Credits: 3
European prehistory from the earliest evidence of human occupation up to the threshold of the Classical Greek and Roman civilizations. Prereq: Anthro 112 or 321 or Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 310 Topics in Archaeology Credits: 3
Selected areas, periods or problems in archaeology. Prereq: Variable
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 311 Archaeological Chemistry Credits: 3
Introduction to laboratory analysis with particular reference to artifactual and non-artifactual remains. Lectures cover methods and interpretation of results; laboratory involves application of methods to archaeological materials. Prereq: Cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 314 Indians of North America Credits: 3
Description and analysis of native cultures, and the role of environmental and historical factors in North America. Prereq: So st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 321 The Emergence of Human Culture Credits: 3
Worldwide archaeological evidence for the development of human culture and behavior from the earliest appearance of human groups to the threshold of the agricultural revolution. Prereq: Prior crse in archaeology, So st, or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 322 The Origins of Civilization Credits: 3
Global archaeological survey of the origins of pristine civilizations beginning with the development of food production and ending with the emergence of the world's first civilizations. Focus of attention: Near East, Egypt, the Indus Valley, North China, Mesoamerica, and Peru. Prereq: Anthro 112 or 321 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ANTHRO 327 Peoples of the Andes Today Credits: 3
Modern Quechua and Aymara-speaking peoples in Ecuador, Peru, and Bolivia: high-altitude herding and farming; Andean models for social organization; land-centered belief and ritual; ethnic discrimination and responses to it; transformations of the Andean cultures in urban and mining settings. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 330 Topics in Ethnology Credits: 3 - 4
Content varies. Some representative topics: peoples and cultures of the European part of the USSR, peoples and cultures of Soviet Asia, anthropology of space and time, anthropology and history, pastoralists and pastoral Nomads, American Indian folklore, etc. Prereq: Intro crse in cult anthro or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 333 Prehistory of Africa Credits: 3
A survey of the archaeological record of human development in Africa, beginning over two million years ago and continuing through the transition to farming and metallurgy; greatest emphasis on the stone age portion of prehistory. Prereq: Anthro 112 or 321 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 340 Music, Race, And Culture in Brazil Credits: 3
Focuses on music's significant role in the formation and maintenance of Brazilian national identity. Students will learn how a variety of Brazilian individuals, groups, and institutions have contributed to popular and scholarly debates about Brazilian culture, identity, and forms of belonging. These discussions will be anchored in important themes in Brazil's recent history, present, and imagined future, such as cultural cannibalism (antropofagia), and racial hybridity (mestiçagem). Students will also gain insight into how Brazilian artists and their audiences have debated race and racism through expressive means by analyzing a variety of anthropological and ethnomusicological texts about Brazil.
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 343 Anthropology of Religion Credits: 3 - 4
Anthropological approaches. Illustrated by critical considerations of outstanding contributions. Selected religious systems; areal and topical comparative studies; religion as an ethnographic problem. Prereq: Anthro 104 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 344 Anthropological Approaches to Folklore Credits: 3
Folklore as cultural process. Reviews interdisciplinary history of theories and methods, examining folklore in terms of genres, performance, cultural construction of gendered identities, sociology of knowledge, domination and resistance. Involves field collections. Enrollment limited to 25. Prereq: Anthro 100, 104, 204 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 345 Family, Kin and Community in Anthropological Perspective Credits: 3
Comparison of the form and function of such social institutions as marriage and the family, age and sex groups, secret societies, task groups, and class in cross-cultural perspective. Prereq: Anthro 104 or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 348 Economic Anthropology Credits: 3 - 4
Production, distribution and consumption in nonliterate societies; land tenure and personal property concepts, prestige systems, and incentives to labor. Prereq: Anthro 104 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 350 Political Anthropology Credits: 3 - 4
Comparison and analysis of political structures, behavior and processes among selected peoples of the world; special emphasis on leadership, authority, power, and the origins of the states; the relevance of primitive political systems to anthropological theory and to the comparative study of politics. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 352 Ancient Technology and Invention Credits: 3
The origins and development of early technologies. Impact of key prehistoric and pre-industrial inventions on the course of human evolution. Prereq: Intro archaeol crse or cons inst
General Education: COM B  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ANTHRO 353 Indians of the Western Great Lakes Credits: 3
Description and analysis of Indian cultures in the area around the western Great Lakes, with special emphasis on traditional cultures of the Indians in Wisconsin. Prereq: Anthro 100, 104 or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 354 Archaeology of Wisconsin Credits: 3
Introduces students to the archaeological evidence for the diverse Native American cultures of Wisconsin over the past 12,000 years. Prereq: Jr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 355 Archaeology of Eastern North America Credits: 3
Reviews the archaeological evidence pertaining to native North American lifeways of the eastern woodlands of North America from the earliest arrival of humans more than 12,000 years ago through sustained contact with Europeans. Prereq: Jr st, Anthro 102 or 112, or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 357 Introduction to the Anthropology of Japan Credits: 3 - 4
Japanese culture from anthropological perspectives. Emphasis on the order of meaning which serves both as model for and model of the day-to-day behavior and thought processes of the Japanese. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 358 Anthropology of China Credits: 3
Topics of immediate concern to the field of anthropology and Chinese studies. Focus on social and cultural changes in rural, urban, as well as ethnic minority settings in post-1949 China. Prereq: So st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 361 Elementary Quechua Credits: 4
Phonology and morphology; concentration on the acquisition of conversational skills; reading of texts of graded difficulty; three hours classroom and one hour lab. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

ANTHRO 362 Elementary Quechua Credits: 4
Continuation of 361. Prereq: Anthro 361 or cons inst. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

ANTHRO 363 Intermediate Quechua Credits: 4
Advanced morphology and syntax; advanced conversation and composition; cultural background of Quechua speaking peoples through reading of myths, legends and folktales. Prereq: Anthro 362 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 364 Advanced Quechua Credits: 4
Continuation of advanced conversation and composition; cultural background of Quechua-speaking peoples through reading of myths, legends, folktales; problems in dialectology. Prereq: Anthro 363 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 365 Medical Anthropology Credits: 3
The ecology of health and disease in human cultures; health-related social systems and behavior cross-culturally; practical implications of medical anthropology for improving the health of specific populations. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 369 Peoples and Cultures of Central and Eastern Europe Credits: 3 - 4
The course will provide the students with the basic information and a body of ethnographic/cultural/historical data on a variety of peoples of Central and Eastern Europe. Prereq: Jr, Sr, or Grad st, or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ANTHRO 370 Field Course in Archaeology  Credits: 3 - 6
An introduction to the techniques of field archaeology, including site survey, mapping, and excavation by participation in an actual archaeological field project. Also instruction in the description and analysis of artifacts. The site(s) excavated vary each year. Normally, residence off campus beyond commuting distance to Madison. At least 5 full work days per week usually required. Prereq: Anthro 102 or 112 or 321 & cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ANTHRO 372 Jews of Central and Eastern Europe  Credits: 3 - 4
Course will focus on main characteristics of Central and Eastern European Jews (Ashkenazim) in their cultural-historical development. Prereq: So st or cons inst. Open to Fr with cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 376 First Semester Yucatec Maya  Credits: 4
Introduction to Yucatec Maya language. Focus on acquiring vocabulary and grammar for basic conversational proficiency. Taught through in-class oral and aural exercises, language tapes, and primary texts. Students also learn about Maya culture, history, folklore, and language politics. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 377 Second Semester Yucatec Maya  Credits: 4
Continued introduction to Yucatec Maya language. Focus on acquiring vocabulary and grammar for basic conversational proficiency. Taught through in-class oral and aural exercises, language tapes, and primary texts. Students also learn about Maya culture, history, folklore, and language politics. Prereq: Anthro 376. Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 391 Bones for the Archaeologist  Credits: 3
An introduction to the principles and techniques in the identification and interpretation of animal bones. Short lectures and weekly laboratory exercises; analysis of an archaeological bone assemblage. Prereq: Intro archaeol crse or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 410 Evolutionary Biology  Credits: 3
Evolutionary biology, emphasizing how modern scientists study evolution. Topics include: nature and mechanisms of microevolution, macroevolution, adaptation, speciation; systematics and taxonomy; quantitative genetics and measurement of natural selection; phylogenetic analyses of behavior, physiology, morphology, biochemistry; current controversies in evolution. Prereq: An elem course in zool or botany & So st; Genetics/Botany/Zool 160 or 466 recommended
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 411 The Evolution of the Genus, Homo  Credits: 3
Course will focus on the course of human evolution beginning with the Pliocene appearance of our genus, Homo, and ending with the worldwide spread of modern Homo sapiens sapiens throughout the Old World. Prereq: Anthro 105, or 107, or 302, or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 420 Introduction to Primatological Research  Credits: 3
Supervised research on topics selected by students. Students will work independently or in small groups, will design their own research project, collect data, and will report their findings. This course intends to develop the skills necessary for independent research in Primatology. Prereq: ANTHRO 100, 105, 458, 668, or PSYCH 450
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 424 Historical Anthropology  Credits: 3
An introduction to historical approaches in anthropology: topics covered include early theories, evolutionism, ethnohistory, culture change, ritual and symbolic transformation, indigenous/oral histories, conceptions of time and the analysis of texts and visual images. Prereq: So st
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 430 Language and Culture  Credits: 3 - 4
The relationship of language as a communication system to the culture transmitted by it. Principle problems in the interrelations of language and nonlinguistic human behavior. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ANTHRO 431 American Indian Folklore Credits: 3
An introduction to the genres of American Indian Folklore. Special attention is given to creation stories, trickster tales, and the relationship between folklore and historical memory. Prereq: Jr st & one of the following: Anthro 314 or 344; Folklore 100 or 230 or 320; or cons inst
Ethnic Studies: Yes  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 437 American Indian Women Credits: 3
Examines and interprets the roles of American Indian women in traditional societies, and in contemporary North America. Prereq: 1 crse in Amer Ind St, Anthro 314 or Women St 223, 101, or 102
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 440 Introduction to Anthropological Research Credits: 3
Supervised research on topics selected by students. Working independently or in small groups, students investigate problems in depth and report their conclusions. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 443 Anthropology by Women Credits: 3
Contributions of women anthropologists to feminist and anthropological theories and research methods. Field research and gender. Current debates in women's studies and anthropology in light of recent research on women and gender in cross-cultural perspective. Prereq: So st; one women st crse or one anthro crse or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 448 Anthropology of Law Credits: 3
A comparative examination of the legal realm of tribal and peasant societies as seen in cross-cultural perspective. Describes the relationship of law to anthropology, presents theories of change of legal systems and provides ethnographic case studies. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 453 Study Abroad: Topics in Archaeology Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg with a UW-Madison study abroad prog
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 454 Study Abroad: Topics in Biological Anthropology Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg with a UW-Madison study abroad prog
L&S Breadth: Biological or Soc Sci  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 455 Study Abroad: Topics in Cultural Anthropology Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg with a UW-Madison study abroad prog
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 456 Symbolic Anthropology Credits: 3 - 4
The study of society through the analysis of symbolic systems. Myth, cosmology, ritual, political symbolism, the symbolic study of kinship, symbols and social change. Prereq: Jr st & Anthro 104 or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 458 Primate Behavioral Ecology Credits: 3
Primate behavior examined from an evolutionary and ecological perspective, focusing on adaptations to the social and nonsocial environment. Topics include: nepotism, reciprocity, competition, cooperation, and sex differences; the ecological role of primates in their communities is discussed. Prereq: Anthro 105, 107, or equiv, or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ANTHRO 460 The Anthropology of Dance: Movement and Music in Performance Credits: 3
Explores the significance of movements, sounds, and the body in the transmission of knowledge, the formation of cultural communities, and the expression of identity. Offers first-hand practical experience of the ethnographic study of dance and movements. Prereq: Junior standing
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

ANTHRO 462 Anthropology of South Asia Credits: 3
Examines dominant intellectual paradigms informing anthropology of South Asia. Topics include debates on caste, kinship, socialization, religions, applied anthropology. Primary focus India but students may write research paper on any South Asian country. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ANTHRO 474 Ethnobotany Credits: 3 - 4
Study of the interactions between human cultures and plants. Topics include: traditional resource management and agriculture; crop domestication, evolution, and conservation; archaeobotany; indigenous knowledge; folk taxonomy; plants in symbolism and religion; dietary patterns; phytochemistry; global movement of plants and peoples. Prereq: A five credit course in botany or biology (e.g., Botany 130, Biology 151) or cons inst
Ethnic Studies: Yes L&S Breadth: Biological or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ANTHRO 477 Anthropology, Environment, and Development Credits: 3
Identifies and examines cultural and environmental factors which should be taken into account in planning effective development. Case studies of development programs in less developed countries. Possible contributions of anthropologists and environmental scientists in planning, implementing, and evaluating development programs. Prereq: An intro course in anthro or envir st or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ANTHRO 490 Undergraduate Seminar Credits: 3
Discussion and preparation of reports on specific topics indicated by changing title of seminar. Prereq: Jr st and cons inst. Not open to Grad stdts; intro crse appropriate to the topic
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ANTHRO 520 Ethnic Representations in Wisconsin Credits: 4
Representation and self-representation of ethnic cultures in Wisconsin. For example: museums, mass media, ethnic theater. Involves field work and/or archival research. Prereq: Anthro 300 or Folklore 200 or cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ANTHRO 539 The Folklore of Festivals and Celebrations Credits: 3
Survey of interdisciplinary literature on social/performative folklore aesthetics and environments by in-depth study of three festivals and ceremonies. Required field trips. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ANTHRO 545 Psychological Anthropology Credits: 3
Survey of psychologically oriented approaches in cultural anthropology: ethnopsychiatry, the ethnography of emotion, conceptions of the self, cognitive development, and culturally defined deviance and mental illness. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ANTHRO 570 Anthropology and Education Credits: 3
The current and historical relation of anthropology to education with particular reference to culture contact and social change, cultural perspectives on education and educational systems, learning as cultural transmission, and application of anthropological knowledge to curriculum. Prereq: Jr st
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ANTHRO 601 Proseminar in Biological Anthropology Credits: 3
A comprehensive overview of the major theoretical developments and debates in biological anthropology. Topics include the concept of adaptation, molecular and population genetics, the fossil record, and the interaction between genes, social behavior and culture. Prereq: Anthro 105 or 107 or cons inst; Jr, Sr, or Grad st
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ANTHRO 603 Seminar in Evolutionary Theory Credits: 3
Evolutionary theory relevant to human evolution including morphological, behavioral and genetical aspects.
Prereq: Cons inst & instruction in morphology, heredity, & stat
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 604 Seminar: Topics in Physical Anthropology of the Living Credits: 3
Theory and practice of techniques in measurement and description of human variation. Topics change. When the
topic warrants, lab sessions. Cons inst. Prereq: Grad st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 605 Seminar-Current Problems in Paleoanthropology Credits: 3
Research with attention on the evolutionary biology of hominids. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 606 Ethnicity, Nations, and Nationalism Credits: 3 - 4
Analytical treatment of current anthropological approaches to the study of ethnicity, nation, and nationalism
accompanied by case studies. Prereq: Sr or Grad st or cons inst
Ethusic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 619 Biology of Mind Credits: 3
Origins and structures of mind, brain, and consciousness. Transitions from early mammalian through primate to
hominid intelligence. Genetics and plasticity in brain development. Modern studies of human brain mechanisms
and consciousness. Prereq: Jr st; college level elem crse in biology or psych
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 632 Linguistic Anthropology Credits: 3
Ethnological analysis of linguistic systems and linguistic approaches to sociocultural systems including:
ethnopoetics; folk biology; ethnography of speaking, discourse and pragmatics; semiotic interpretation of social
behavior; cultural reconstruction for linguistic data. Prereq: Intro crse in linguis or anthro, or cons inst, or grad st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 639 Field School: Ethnography of Wisconsin Festivals Credits: 6 - 8
A review of key methodological and theoretical approaches for studying festivals, in situ observation of summer
festivals and small town folk and ethnic museums, and supervised writing and photographic assignments.
Prereq: Cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ANTHRO 641 The Evolution of Human Diet Credits: 3 - 4
Diet as constrained by nutritional requirements throughout primate and human evolution. Topics covered: primate
diets as models, diets of our primate and human ancestors, early agriculturalists, and modern gatherer-hunters.
Prereq: Anthro 105 or 107 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 658 Ecological Models of Behavior Credits: 3
Examines the theoretical assumptions and empirical development of optimality models in behavioral ecology and
social evolution, and applies these models to the evolution of body size and life history variables, foraging, social
organization, cognition, and reproductive strategies. Prereq: Jr, Sr, or Grad st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 666 The Anthropology of Shamanism and Occult Experience Credits: 3
Shamanism is a global form of religious practice involving direct contact with the spirit world through ecstatic and
magical techniques. This course examines shamanic practice and considers allied forms of occult experience
outside of the major world religions. Prereq: So st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANTHRO 668 Primate Conservation Credits: 3
Evaluates the conservation status of non-human primates, and considers why different species are vulnerable to
different kinds of threats. The ways in which regional and global conservation policies are developed and
implemented will also be discussed. Prereq: ANTHRO 458 or PSYCH 450 or ENVIR ST/F&W ECOL/ZOOLOGY
360 or ANTHRO/BOTANY/ZOOLOGY 410 or BOTANY/F&W ECOL/ZOOLOGY 460
L&S Breadth: Biological or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
ANTHRO 677 Public Monuments and Symbols Credits: 3
Focus on public monuments and symbols as a means through which the citizens of the modern state are socialized and common identities are changed, as well as on their role in social and cultural change. Prereq: Jr st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANTHRO 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ANTHRO 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ANTHRO 690 Problems in Anthropology Credits: 3 - 4
Independent research in specific problems in physical anthropology, archaeology, or cultural anthropology; under supervision. Prereq: Cons inst or Jr or Sr major or Grad st
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ANTHRO 691 Senior Thesis Credits: 2
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ANTHRO 692 Senior Thesis Credits: 2
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ANTHRO 696 Archaeological Methods of Curation Credits: 1 - 3
Practicum in the curation of prehistoric stone, bone, and ceramics. Involves handling materials, identification of artifacts, conservation techniques, preparation of materials for storage or display. Prereq: Prior coursework in archaeology and cons instr
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 698 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a Cr/N basis. Previous or con exposure to the same subj on an intmed level; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 699 Directed Study Credits: 1 - 6
Letter graded. Prereq: Previous or con exposure to the same subj on an intmed level, Jr or Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ANTHRO 764 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di
Typically Offered: Occasionally

ANTHRO 774 Methods for Historical Research in Non-Literate Societies Credits: 3
Techniques and critical analysis applied to written, oral, archaeological, linguistic and cultural data. Stresses problems of synthesis. Exercises. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ANTHRO 860 History of Anthropological Theory Credits: 3
Intellectual history of the major theoretical debates and key figures in cultural anthropology up to the 1960's. Prereq: Grad st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  Typically Offered: Occasionally
ANTHRO 900 Fundamentals of Anthropological Theory Credits: 3
Seminar introducing students to fundamentals of anthropological thought using a cross-section of basic works in social science. Emphasizes discussion, critical analysis, and development of professional writing skills. Prereq: Grad st
L&S Level: Advanced  Typically Offered: Occasionally

ANTHRO 906 Methods and Hypothesis-Testing for Behavioral Ecologists Credits: 1 - 3
A detailed overview of field methods for behavioral ecologists, focusing specifically on behavioral and ecological sampling techniques. It addresses the challenging process of situating an empirical study within the context of theoretical paradigms. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ANTHRO 909 Research Methods and Research Design in Cultural Anthropology Credits: 3
Theoretical and practical aspects of ethnographic research; history of field research in anthropology; research design issues; writing proposals; the fieldwork experience; methods of field data collection; ethical issues; data interpretation and analysis; writing ethnography. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ANTHRO 917 Globalization and Transnational Cultures Credits: 3
Reviewing the current state of anthropological studies of globalization and examining various approaches taken to the subject. Focusing on works that conceptualize and theorize the transnational culture and ethnographies that represent and explore its multiplicity and complexity. Prereq: Grad st
Typically Offered: Fall

ANTHRO 919 Anthropology and International Health Credits: 2
Examination of international health issues from the theoretical and methodological perspectives of anthropology. Course includes case studies of applied medical anthropology work as well as critical analysis of development initiatives in public health. Prereq: Grad st
Typically Offered: Occasionally

ANTHRO 920 Anthropology of Gender Credits: 3
Theoretical and ethnographic approaches to the anthropology of gender, focusing on current works. Topics include sexual inequality, research methods, gender and history, gender and ethnographic writing, cultural constructions of masculinity, sexuality, and gender studies and anthropological theory. Prereq: Grad st
L&S Level: Advanced  Typically Offered: Occasionally

ANTHRO 925 Seminar: Socio-Economic Change in Underdeveloped Areas Credits: 2 - 3
Social and economic factors relating to stability, growth, and change in the non-Western areas of the contemporary world. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ANTHRO 940 Seminar-Problems in Cultural Anthropology Credits: 3
Current anthropological literature and methods. Assigned problems. Prereq: Grad st or Sr st with permission & cons inst
Typically Offered: Occasionally

ANTHRO 942 Seminar-Archaeological Problems Credits: 3
Current literature and methods and work on assigned problems. Prereq: Grad st
Typically Offered: Occasionally

ANTHRO 970 Seminar in Anthropology and Education Credits: 3
Anthropological theory, methodology, and field techniques with specific reference to school ethnography and cross-cultural studies of socialization and education. Topics vary. Prereq: Grad st
Typically Offered: Occasionally

ANTHRO 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

ANTHRO 983 Interdepartmental Seminar-African Studies Credits: 3
Interdisciplinary inquiry in African society and culture. Prereq: Grad st or cons inst
Typically Offered: Occasionally
ANTHRO 990 Research and Thesis Credits: 1 - 3
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

ANTHRO 999 Reading and Research Credits: 1 - 9
Prereq: Grad st & cons of major prof
Typically Offered: Occasionally

ART HISTORY

ART HIST 101 The Study of Art, Present and Past Credits: 4
A critical introduction to the materials, techniques, and interpretation of art. Discussions of the art of various times and cultures, including contemporary America. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 103 Art Matters: Topics in Art History Credits: 3 - 4
An accessible introduction to World Art through changing themes. Engaging mini-lectures by professors in different fields of art history coordinated by a framework of foundational information and class exercises. Includes Western Art from Ancient to Contemporary, Chinese Art, Japanese Art, Islamic Art, and African Art, with an emphasis on the arts of the diverse populations of the United States. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 105 Introductory Topics in Art History Credits: 3
This is a seminar-type course primarily to be offered as a FIG coordinating course. Topics will vary. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

ART HIST 201 History of Western Art I: From Pyramids to Cathedrals Credits: 4
Examines the arts and cultures of Europe and the Mediterranean basin before the Renaissance. We explore canonical works such as the pyramids at Giza, the Parthenon in Athens, the Venus di Milo, Hagia Sophia in Constantinople, the Book of Kells, the Great Mosque at Córdoba, Chartres cathedral, and Giotto's Arena Chapel. But we also define art broadly, to encompass the material culture of everyday life, including jewelry, ceramics, and textiles. We consider the social and historical contexts of art and artistic production - art and imperialism, ethnicity, technology, religious ritual and belief, and myth and storytelling. These explorations address basic human concerns: death and the afterlife
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 202 History of Western Art II: From Renaissance to Contemporary Credits: 4
Examines the arts and cultures of Europe and North America from the Renaissance through the present. Our discussions will explore important masterpieces by such renowned artists as Leonardo da Vinci, Rembrandt van Rijn, Claude Monet, Paul Cézanne, Pablo Picasso, Frida Kahlo, and Frank Lloyd Wright alongside other works of fine art, architecture, the decorative arts, and photography. By studying the political, historical, social and cultural contexts of their making, we will begin to understand how certain works of art were valued from the moment of their making, fought over by different nations, bought, sold, stolen, or ignored for centuries and revived only recently for study. We will crit
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ART HIST 203 Survey of Asian Art Credits: 3 - 4
Introduction to the artistic traditions of China and Japan from neolithic times to the nineteenth century and the Buddhist art of India with its subsequent East Asia embodiments. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 204 Introduction to Visual Cultures Credits: 3
This is a foundation course in the transdisciplinary field of Visual Cultures. It examines theories and technologies of vision and visuality in their disparate manifestations over time and cultures and geographies. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ART HIST 205 Global Arts  Credits: 4
ART IS GLOBAL (and always has been). Today, we find Egyptian protest artists inspiring activists around the globe via the internet, but in earlier times, Roman glass and Buddhist icons moved along the ancient Silk Route, networks of exchange flourished in the medieval Mediterranean region, and colonial empires brought visual cultures into volatile contact. This course teaches students how to analyze images and objects produced through such exchanges that occurred around the world from ancient times through the contemporary. Its aims are to develop skills needed to live fully in a world in which borders are no barriers to the movement of images, objects, and ideas and to deepen understanding.
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 206 Survey of Photography: 1839 to 1989 Credits: 3 - 4
Survey of 150 years of photography’s processes, practitioners, and genres. Emphasis on tensions between its commercial, vernacular, and artistic forms.  Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART HIST 208 Western Architecture: Renaissance to Modern Credits: 4
A chronological survey of the development of European architecture from the early fifteenth century to the twentieth.  Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 227 The Ends of Modernism Credits: 4
This course considers the end of Modernist art as it gives way to what is called, problematically, contemporary art. While the term modern may generally mean what is vanguard or current, Modernism indicates a period of art (and the humanities) ranging from, arguably, 1880-1950. By considering its end, one can study four pivotal aspects of the movement: its origins, themes, and afterlives, as well as the art and histories that challenge its coherence. In this thematic survey, then, Modernism will emerge as a heterogeneous set of images and attendant discourses which, negatively or positively, continue to work within the contemporary artistic and cultural moment.  Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ART HIST 241 Introduction to African Art and Architecture Credits: 3
This course examines the rich heritage of African arts and architecture as they shape and have been shaped by the histories and cultural values (social, political, religious, philosophical, and aesthetic) of African peoples, both past and present, on the continent where humanity began. It includes an historical overview of selected artistic traditions from different parts of the continent from 26,000 BCE to the 21st century and thematic/cultural case studies: artists and aesthetics; textiles, decorative, and personal/body arts; architecture; and individual artists.  Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 242 Introduction to Afro-American Art Credits: 3
Historical survey of Afro-American art. Beginning with the African heritage and concluding with creativity of the 1970’s, it examines the evolution of Afro-American art. Attention to the aesthetic sensibilities of diverse styles as well as the social significance of Black art within the art arena.  Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 264 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ART HIST 300 The Art and Archaeology of Ancient Greece Credits: 3 - 4
Explores the art and archaeology of ancient Greece from the Bronze Age through the Hellenistic period.  Prereq: Open to all Undergrads
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
ART HIST 301 Greek Painting Credits: 3 - 4
Problems of techniques, style and iconography in wall and vase painting from Geometric to 403 B.C. Prereq: So st & Art Hist 201 or 300 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ART HIST 302 Greek Sculpture Credits: 3 - 4
Problems in style, techniques and reconstruction of glyptic sculpture, koroplastics and bronzes from the Late Bronze Age through fifth century B.C. Prereq: So st & Art Hist 201 or 300 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ART HIST 304 The Art and Archaeology of Ancient Rome Credits: 3 - 4
Explores the art and archaeology of ancient Italy, the Roman Republic, and the Roman Empire from the Iron Age to Late Antiquity. Prereq: Open to all Undergrads
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ART HIST 305 History of Islamic Art and Architecture Credits: 3
This course surveys the architecture, landscape, book arts, and luxury objects produced in Islamic contexts from Spain to India from the 7th through the 21st centuries. Attention will be focused upon the relationships between Islamic visual idioms and localized religious, political, and socioeconomic circumstances. In particular, lectures and readings will examine the vital roles played by theology, royal patronage, ceremonies, gift exchange, trade, and workshop practices in the formulation of visual traditions. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

ART HIST 307 Early Chinese Art: From Antiquity to the Tenth Century Credits: 3
This course introduces art forms and concepts developed in China from antiquity to mid-10th century, covering jade carving, metalwork, sculpture, ceramics, calligraphy, painting woodblock printing, and architecture mostly created for religious or funerary purposes. Emerging aesthetic concepts also discussed. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 308 Later Chinese Art: From the Tenth Century to the Present Credits: 3
Traces the evolution of art forms and concepts from mid-10th century onward, and examines their transformations in modern and contemporary China. Organized chronologically, the course presents developments in painting, calligraphy, woodblock printing, ceramics, architecture, and multimedia installations. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 310 Early Christian and Byzantine Art Credits: 3 - 4
Evolving forms of the arts in the period of the first great Christian era. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ART HIST 318 Romanesque and Gothic Art and Architecture Credits: 3 - 4
Art and architecture of Western Europe, ca. 1000 to ca. 1350. Particular emphasis on the relationship of the arts to theology, ritual, concepts of the body, rulership and courtliness. Prereq: Art Hist 201. Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ART HIST 320 Italian Renaissance Art Credits: 3 - 4
Painting, sculpture, and architecture. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 321 Italian Art: 1250-1400 Credits: 3 - 4
Developments in the arts within the broader historical and cultural context: issues of artistic style, patronage, the artist's emerging self-consciousness. Major artists include Giotto, Duccio, the Pisani, Simone Martini, and Altichiero. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 322 Italian Art from Donatello to Leonardo da Vinci, 1400-1500 Credits: 3 - 4
Stylistic analysis of 15th century art in Florence and other regional centers. Emphasis on the relationship between the arts and the historical-cultural context. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ART HIST 323 From Michelangelo & Raphael to Titian: The Arts in 16th Century Italy Credits: 3 - 4
This course runs from 1500-1570, or the High Renaissance to Mannerism, and concludes at the beginning of the Church Reform period. Emphasis is on painting, sculpture and architecture, but the graphic and decorative arts as well as patronage and the impact of global discoveries also are included. Prereq: None
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 330 The Painting & Graphic Arts of Germany 1350-1530 Credits: 3 - 4
Leaders in German painting and graphics including Stephan Lochner, the Master ES, Durer, and Grunewald.
Prereq: So st & Art Hist 202 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 331 Netherlandish Painting of the 15th Century Credits: 3 - 4
Masters of Netherlandish art, including the van Eycks, van der Weyden, Bouts, van der Goes, and Memling.
Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 332 Northern Painting and Graphics from Bosch and Holbein to Bruegel Credits: 3 - 4
Late Renaissance and Mannerism in the Netherlands and Germany. Includes Bosch, Bruegel, Cranach, Holbein.
Prereq: So st & Art Hist 202 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 333 Netherlandish Painting of the 17th Century Credits: 3 - 4
Masters of landscape, genre, religious painting, and portraiture of the Low Countries, including Rubens, Rembrandt, Hals, and Vermeer.
Prereq: So st & Art Hist 202 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 334 Prints and Master Printmakers of the Western World Credits: 3 - 4
Art in the graphic media, from the fifteenth century to the recent past.
Prereq: So st & Art Hist 202 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 335 Study Abroad in Ancient/Medieval Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States.
Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 336 Study Abroad in Renaissance/Baroque/Northern Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States.
Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 337 Study Abroad in 18th-20th Century Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States.
Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 338 Study Abroad in African/Asian Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States.
Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 341 Italian Baroque Art Credits: 3 - 4
Italian painting, sculpture, architecture, and the graphic arts between 1600 and 1750 with emphasis on Caravaggio, the Carracci, Artemesia Gentileschi, Bernini, Algardi, Borromini, the Tiepolo family, and Piranesi.
Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 346 British Art and Society from the Eighteenth Century to the Present Credits: 3 - 4
Major movements covered include: eighteenth century art of the public sphere (Hogarth, Wright of Derby), Neo-Classicism (Reynolds), Romanticism (Blake, Turner), landscape, Pre-Raphaelites, modern movements and the postmodern revival of British art.
Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ART HIST 350 19th Century Painting in Europe Credits: 3 - 4
History of European painting from 1800 to 1900. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ART HIST 351 20th Century Art in Europe Credits: 3 - 4
Major artists and movements from 1880 to 1950. Prereq: So st & Art Hist 202 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 354 Cross-Cultural Arts Around the Atlantic Rim: 1800 to the Present Credits: 3 - 4
Interdisciplinary study of cross-cultural exchange and conflict, focusing on the visual arts, with sections on literature, film and music from the Americas, Africa and Europe. Prereq: Sophomore standing or consent of instructor
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ART HIST 355 History of Photography Credits: 3
European and American photography from its invention to the challenge of electronic media, emphasizing the student's development of a critical approach to the medium. Prereq: So st & Art Hist 202 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 357 European Architecture: The Nineteenth Century Credits: 3 - 4
Architecture of the 19th century in France, Britain, Germany, and Spain. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 358 European Architecture: The Modern Movements Credits: 3 - 4
Major architectural trends in Europe from 1900 to 1939. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 359 American Indian Art History: Contemporary Issues Credits: 3
A thematic introduction to contemporary (1960 - present) Native North American art drawing from historic (pre and post-contact) precedents. Topics are generated from the conceptual themes of contact, conflict, exchange, appropriation and re-appropriation of American Indian imagery, materials, and ideas. Prereq: Open to Fr
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ART HIST 360 Early Modern Art of Northern Europe: Renaissances and Reformations Credits: 3
This course critically reexamines concepts traditionally associated with the Renaissance by focusing on the exchange of artistic ideas throughout the Holy Roman Empire and across different media, such as altarpiece paintings, carved portraits, stained glass narratives, innovative uses of print, reappropriations of metalwork, and expressive uses of drawing. The course is organized thematically around four topics: religious art as piety and politics; antiquity as a source of tradition and imagination; the formulation of a public discourse that exposed social threats; and the distinctiveness of artistic claims of individual achievement.
A motif throughout the course is the question of how the
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ART HIST 363 American Decorative Arts and Interiors: 1620-1840 Credits: 3 - 4
Interdisciplinary study of the design, production, and consumption of household objects and their American domestic settings, 17th through the early 19th centuries. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 364 History of American Art: Art, Material Culture, and Constructions of Identity, 1607-present Credits: 3 - 4
This course examines the history of American Art from the period of permanent European settlement through the present. Works of art and other forms of material culture will be explored and discussed within the context of philosophical, historical, social, and cultural developments in the United States and across the globe. In this course, works of art and artifacts are interpreted not as passive objects that reflect history, but rather as active agents that are entwined with broader historical, social, and cultural events. A particular focus will be on the ways in which American art and material culture participates in the construction of identities - ranging from global identities and nat
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
ART HIST 365 The Concept of Contemporary Art Credits: 3 - 4
Traces out some of the radical changes in art produced after roughly 1950, or what might be called contemporary art. By using the term contemporary, however, we also refer to a certain broadly defined set of ideas that inform and emerge from this highly diverse production. The course will largely (although not exclusively) focus on American and European art after the "decline" of Modernism. That entails familiarizing the class with movements ranging from color field painting, to postmodern production, to performance, video, and installation. Additionally, attention will be paid to artists and artwork that are not adequately represented by the traditional categories of art history. Prereq:
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART HIST 367 American Architecture: Colonial and Federal Credits: 3 - 4
American architecture from the sixteenth through the early nineteenth centuries, covering English, Spanish, Dutch and French colonial styles and the Federal period. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 368 American Architecture: The 19th Century Credits: 3 - 4
Major architects and trends in American architecture from the Greek Revival to the Chicago School. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 371 Chinese Painting Credits: 3 - 4
A survey of Chinese painting from the third century B.C. to the 18th century, introducing the important masters of each period and discussing the esthetic concepts and theories that underlie traditional connoisseurship. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 372 Arts of Japan Credits: 3 - 4
A survey of Japanese art, including painting, sculpture, architecture, woodblock prints and various crafts. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART HIST 373 Great Cities of Islam Credits: 3
This course offers a comparative study of the foundation and development of five great cities in the history of Islam: Cairo, Istanbul, Delhi, Mecca, and Isfahan. Architectural projects, ornamental idioms, and changes to the urban plan are studied from aesthetic and cultural perspectives. Integrating historical and religious studies, this course highlights the shifting nature of Islamic culture, from the tenth century CE to the present. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART HIST 375 Later Japanese Painting and Woodblock Prints Credits: 3 - 4
An introduction to the history and aesthetics of Japanese painting and woodblock prints from 1600 to 1900. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART HIST 379 Cities of Asia Credits: 3
Historical overview of the built environment of cities of Asia from antiquity to the present; architectural and urban legacy in its social and historical context; exploration of common themes that thread through the diverse geographical regions and cultures of Asia. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART HIST 390 Pre-Columbian Art Credits: 3 - 4
Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 405 Cities and Sanctuaries of Ancient Greece Credits: 3
Topics include urbanism in ancient Greece in theory and practice; the forms, technologies, patronage and use of buildings; the creation and conception of urban space; and the organization of religious sites, dedications, and rituals. Prereq: Art Hist 201, 300, 301, 302, Classics 300, or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
ART HIST 407 Topics in Nineteenth Century Art Credits: 3 - 4
An advanced lecture course, covering specific aspects of nineteenth century visual culture. Topics include: representations of race and gender; the history of photography; popular imagery and aspects of Modernism.
Prereq: Jr st & one art hist crse at 200 level & one at 300 level, or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART HIST 408 Topics in Twentieth-Century Art Credits: 3 - 4
Advanced lecture course on special topics of 20th-century art that focuses variously on Europe, England, America, or their international interaction. Emphasis on art in its historical and social context. Prereq: Jr st; one art hist crse at 200 level; one art hist crse at 300 level; or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 411 Topics in Asian Art Credits: 3 - 4
In-depth examination of special topics related to Asian art, including South Asia, East Asia, Southeast Asia, and Central Asia. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 412 Topics in African and African Diaspora Art History Credits: 3 - 4
Cultural and historical forces that have shaped the arts of either a specific people or a specific site in Africa or the African Americas. Prereq: Jr st & Afro-Amer 241 or 243 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 413 Art and Architecture in the Age of the Caliphs Credits: 3
The tenth century CE marked a period of drastic change in the Islamic world, as the unified Islamic caliphate splintered into three rival dynasties: the Sunni Iraqi Abbasids, Spanish Umayyads, and the Shi'ite Fatimids in Egypt. In their quest to dominate the Islamic world and control the Mediterranean, each dynasty openly competed and responded to the others in architectural projects, ceremonial practices and courtly arts. At the same time, the monolithic model of courtly patronage of the arts was replaced gradually by one in which the urban classes increasingly shaped the art market, resulting in new visual forms. This course considers this turning point in the history of Islamic culture th
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ART HIST 415 Topics in Medieval Art Credits: 3
An advanced lecture course, covering specific aspects of Medieval art. Topics may include: "Death and the Afterlife in Medieval Art"; "Civic Art and Architecture and Public Space in Medieval Italy"; "Rome in the Middle Ages"; "Pilgrimage & the Cult of the Saints in Medieval & Byzantine Art." Prereq: Jr st & one Art Hist crse at 200 level and one at 300 level, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 420 Topics in Italian Renaissance Art Credits: 3
An advanced lecture course, covering specific aspects of Italian Renaissance art. Topics may include: "Material Culture: Is 'Copying' Imitatio?"; "Concepts of Race"; "'Authorship' vs. Collaboration"; "Colonialism as Trade"; "Gender at Stake." Prereq: Jr st & one Art Hist crse at 200 level and one at 300 level, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 425 Race and Gender in Italian Early Modern Art Credits: 3
This course focuses on critical omissions in traditional characterizations of Italian Renaissance art. Gender and race issues created tensions between historical contexts and visual representations, often idealized or obscured. The course reevaluates imagery of nudes, witches, children, and material culture. Prereq: One of the following: Art Hist 202, 320, 321, 322, 323, 341, 525 or 825
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ART HIST 428 Visual Cultures of South Asia Credits: 3
Concentrates on image complexes (art, photography, and cinema) and visual environments (architecture, urban planning, and public rituals) of South Asia; examination of visual culture through thematic issues such as, sexuality, patronage, cultural encounter, transculturation, ways of viewing, modernism, and nationalism. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ART HIST 430 Topics in Visual Culture Credits: 3
Introduces key issues, theories, and methods in visual cultures studies, emphasizing aspects that affect the practices of art history and providing a changing topical focus that addresses new research in this developing interdisciplinary area.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 431 Topics in Theory Credits: 3
Introduces philosophy and theory relevant to the study of art history and visual cultures with a focus on a particular body of theoretical work and an organization in terms of key questions and concepts.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 432 Multiculturalism and the New Museology Credits: 3 - 4
Museums and Multiculturalism addresses historic and current trends in museum studies and the impact of shifting professional and popular standards on these movements. The significance of the object in various cultural contexts is critically examined. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 433 Sign, Symbol, Stereotype: Native Icons Revealed Credits: 3 - 4
"Native Icons" critically examines images of Native American Indians - from the diverse contexts of fine arts, popular culture, photography and film - in historic and contemporary cultural contexts. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 435 Study Abroad in Ancient/Medieval Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States. Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 436 Study Abroad in Renaissance/Baroque/Northern Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States. Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 437 Study Abroad in 18th-20th Century Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States. Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 438 Study Abroad in African/Asian Art Credits: 1 - 6
Treatment of an art historical topic in a course offered at a university outside the United States. Prereq: Art Hist 201 or 202; Jr st; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 440 Art and Power in the Arab World Credits: 3
This course considers the use of art and architecture as an expression of power in the Arab world, from the seventh century to the present. Beginning with the establishment of the caliphate and ending with the arts of revolution following the Arab Spring, we will investigate the shifting role of art and architecture in the quest for political dominance. With a particular focus on the arts of Cairo, Baghdad, Cordoba, Mecca, Jerusalem, Damascus, and the modern Arabian Gulf, we will explore competing visions of power and sources of legitimacy, through the lens of artistic production. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

ART HIST 449 Topics in Architectural History Credits: 3
Assessment of how cultural phenomena help shape a given architectural development. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 454 Art in Germany, 1900-1945 Credits: 3 - 4
Expressionism and its sources, with an emphasis on developments prior to World War I; the Bauhaus and the later careers of major figures. Prereq: Jr st; Art Hist 201 or 202; and at least one other upper-level crse in art hist or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
ART HIST 457 History of American Vernacular Architecture and Landscapes Credits: 3
Survey of American vernacular buildings and landscapes from the colonial period to the present. Emphasis is on acquiring descriptive tools and developing interpretive frameworks to explore the significance that these vernacular environments have had for their makers and users. Prereq: Jr st & at least one Art Hist crse, or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 463 Topics in American Material Culture Credits: 3 - 4
In depth examination of special topics related to material culture and the decorative arts, including craftsmanship, consumerism, representations of race, ethnicity, and gender, and museum histories and exhibition practices. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 464 Dimensions of Material Culture Credits: 3
Approaches to the interdisciplinary study of the material world in order to analyze broader social and cultural issues. Guest speakers explore private and public objects and spaces from historic, ethnographic, and aesthetic perspectives. Prereq: 1 course at the 300 level or above from ART HIST or DS
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 468 Frank Lloyd Wright Credits: 3 - 4
An analysis of Frank Lloyd Wright's architecture and writings. Prereq: Jr st & one crse in architect hist or cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 475 Japanese Ceramics and Allied Arts Credits: 3
A history of Japanese ceramics and related topics such as Chinese and Korean ceramics and the tea ceremony. Emphasis placed on the technological, cultural, political, and economic, as well as aesthetic, dimentions of ceramic development. Prereq: Undergrads: a prev crse in art hist or design & satisfaction of Com B requirement. Knowledge of Japan recommended
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ART HIST 478 Art and Religious Practice in Medieval Japan Credits: 3
A study of spaces, objects, and images within the context of religious belief and practice in Japan between 1300 and 1600, when great Zen monasteries grew up alongside older Buddhist/Shinto religious "megaplexes," and new salvationist sects spread throughout Japan. Prereq: Undergrads: a prev crse in art hist or relig studies & satisfaction of Com B requirement. Knowledge of Asian religion recommended
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ART HIST 479 Art and History in Africa Credits: 3 - 4
Selected African art traditions in their historical and cultural settings. Prereq: Jr st & one crse in African art or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ART HIST 500 Proseminar: Special Topics in Art History Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ART HIST 505 Proseminar in Ancient Art Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
ART HIST 506 Curatorial Studies Exhibition Practice Credits: 3
This course will engage students in all aspects of the preparation of an exhibition for the Chazen Museum of Art or other exhibition spaces on campus. Students will help conceptualize the exhibition and its layout, research and interpret individual objects, prepare wall texts for the display and other materials published in print or online in conjunction with the exhibition. The specific topic will be different each time the course is taught. Prereq: Junior Standing. At least one previous course in Art History at 300 level or above. Preference will be given to students enrolled in the Curatorial Studies Certificate programs
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ART HIST 515 Proseminar in Medieval Art Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 525 Proseminar in Italian Renaissance Art Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 535 Proseminar in Northern European Painting Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 555 Proseminar in 19th Century European Art Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART HIST 556 Proseminar in 20th Century European Art Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ART HIST 563 Proseminar in Material Culture Credits: 3
Interdisciplinary study of the way people use objects and environments to express identities and relationships in households, communities, and larger social/economic systems. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 565 Proseminar in American Art Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 567 Proseminar in American Architecture Credits: 3
Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 569 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 575 Proseminar in Japanese Art Credits: 3
Prereq: Any course treating Japanese art, or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ART HIST 576 Proseminar in Chinese Art Credits: 3
Prereq: Cons inst or any other crse in Chinese art or Art Hist 203
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
ART HIST  579 Proseminar in African Art  Credits: 3
Study (either thematic or culture-specific) of African arts and architecture in historical and cultural perspectives.  
Prereq:  Junior standing or consent of instructor  
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

ART HIST  600 Special Topics in Art History  Credits: 3
Prereq:  Jr st, or cons inst  
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

ART HIST  601 Introduction to Museum Studies I  Credits: 3
History of museums and collecting; introduction to connoisseurship; studies and practices in art museum activities; experience in exhibition planning, research, cataloging, and installation.  Prereq:  Sr or Grad st; cons inst; ltd enrollment  
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

ART HIST  602 Introduction to Museum Studies II  Credits: 3
Continuation of 601  Prereq:  Art Hist 601 & cons inst  
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

ART HIST  603 Curatorial Studies Colloquium  Credits: 3
This course is designed to introduce advanced undergraduate students to a broad range of questions, both theoretical and practical, related to curatorial practice. The core of the course is a series of sessions on curatorial strategies. Particular emphasis will be placed on integrative and collaborative approaches to curating a wide variety of material: art, film, music, books, anthropology/culture, archeology, history, geology, zoology, dance, etc. With this ideal in mind, we will bring in a series of experts to engage with each other and with the class on the theories, objectives, and processes of conceiving, designing, and mounting exhibitions, as well as reaching different audiences with  
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

ART HIST  621 Mapping, Making, and Representing Colonial Spaces  Credits: 3
Spatial legacy of colonialism; explores important ways in which the population, landscape, architecture, and urban environment of colonies were mapped, made, and represented, particularly in the 19th and 20th centuries; theoretical and empirical analyses from diverse disciplines and spatial terrain.  Prereq:  Sr st or cons inst  
L&S Breadth:  Humanities  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

ART HIST  643 Selected Topics in African Diaspora Art History  Credits: 3
Art history of a specific African cultural tradition (eg. Yoruba, Kongo, Fon, Akan) and its transformation in the Caribbean, Central and South America in response to new social, historical, and hegemonic forces.  Prereq:  Afro-Amer 241, 242, 243 or consent of instructor  
Ethnic Studies:  Yes  L&S Level:  Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

ART HIST  650 History of Books and Print Culture in Europe and North America  Credits: 3
History of books and print culture in the West from ancient times to the present. Focus on the influence of reading and writing on social, cultural, and intellectual life. Methodologies, theories, and sources for study of book and print culture history.  Prereq:  Junior standing; or Graduate student in SLIS  
L&S Level:  Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

ART HIST  681 Senior Honors Thesis  Credits: 3
Prereq:  Consent of instructor  
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

ART HIST  682 Senior Honors Thesis  Credits: 3
Prereq:  Consent of instructor  
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

ART HIST  691 Senior Thesis  Credits: 3 - 6
Prereq:  Sr st and cons inst  
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ART HIST  692 Senior Thesis  Credits: 3 - 6
Prereq:  Sr st and cons inst  
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer
ART HIST 697 Undergraduate Curatorial Studies Internship (Directed Study) Credits: 1 - 3
This directed study may serve as an elective for the new undergraduate certificate in Curatorial Studies, as an elective for the Material Culture certificate program, or for a specific stand-alone project. The goal is to give students credit for applied learning experiences in museums and other curatorial settings. Students must identify internship possibilities and have them approved for credit by the faculty member who will serve as instructor of record, and oversee the academic side of the internship. The nature of the internship will vary according to the host institution, but to be accepted for credit, it must have a substantial research component. Examples include but are not limited to:
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

ART HIST 698 Directed Study Credits: 2 - 3
Prereq: Graded on a Cr/N basis; requires Jr or Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ART HIST 699 Directed Study Credits: 1 - 3
Prereq: Graded on a lettered basis; requires Jr or Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ART HIST 700 The Art and Archaeology of Ancient Greece Credits: 3
Explores the art and archaeology of ancient Greece from the Bronze Age through the Hellenistic period. Prereq: Cons inst
Typically Offered: Fall

ART HIST 701 Practicum in Art History: Bibliography, Historiography, Methods Credits: 3
Required methodology course for first-year graduate students in art history. Intensive work in critical analysis and research methods; introduction to the methods and historiography of art history; orientation to source work in the Elvehjem collection and in University libraries. Prereq: First yr art hist grad stdt or cons inst
Typically Offered: Fall

ART HIST 703 Curatorial Studies Colloquium Credits: 3
This course is designed to introduce graduate students to a broad range of questions, both theoretical and practical, related to curatorial practice. The core of the course is a series of sessions on curatorial strategies. Particular emphasis will be placed on integrative and collaborative approaches to curating a wide variety of material: art, film, music, books, anthropology/culture, archeology, history, geology, zoology, dance, etc. With this ideal in mind, we will bring in a series of experts to engage with each other and with the class on the theories, objectives, and processes of conceiving, designing, and mounting exhibitions, as well as reaching different audiences with both physical
Typically Offered: Fall, Spring

ART HIST 704 The Art and Archaeology of Ancient Rome Credits: 3
Explores the art and archaeology of ancient Italy, the Roman Republic, and the Roman Empire from the Iron Age to Late Antiquity. Prereq: Cons inst
Typically Offered: Spring

ART HIST 706 Topics in American Art History Credits: 3
This graduate-level course typically meets with an intermediate to advanced level lecture course. However, the requirements for graduate students are different, consisting of journal entries, presentations, and a substantial research paper as well as attendance and participation in the lectures. Topics vary but may include such topics as "History of American Art, 1607-present;" "American Genre;" "The Material Culture of American Suburbs;" and "Modernism in American, 1900-1960." Prereq: Graduate or professional standing
Typically Offered: Occasionally

ART HIST 707 Topics in Nineteenth-Century European Art Credits: 3
This course typically meets with an intermediate to advanced level lecture courses covering specific aspects of 19th-century visual culture. Topics may include: representations of race and gender; the history of photography; popular imagery, aspects of Modernism, Realism, and Pre-Raphaelitism. However, the requirements for graduate students are different, consisting of presentations and a substantial research paper. The meets-with course is AH407 Topics in European Art. Prereq: None
Typically Offered: Fall, Spring
ART HIST 712 Topics in African & African Diaspora Art History Credits: 3
This course typically meets with an intermediate to advanced level lecture course. However, the requirements for graduate students are different, consisting of mentoring, longer presentations, and a substantial research paper. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ART HIST 715 Topics in Medieval Art Credits: 3
This course typically meets with an advanced undergraduate topics course that focuses on various themes of current interest in the art, architecture and visual culture of medieval Europe and the Mediterranean (including the Byzantine Empire and Islamic states of the Mediterranean rim). Topics include: Death and the Afterlife; Civic Art, Architecture and Public Space in Medieval Italy; Cultural Appropriation and Alterity in Medieval Art; and Image and Text in Medieval Manuscripts. Class alternates between lecture and discussion of current debates in the scholarly literature. Graduate students are required to write reading responses, a major research paper and give an oral presentation. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

ART HIST 731 Topics in Early Modern Art Credits: 3
This course encourages graduate students to think deeply and conduct innovative research on topics in Early Modern art. This course typically meets with intermediate to advanced level courses. The requirements include reading responses, a class presentation, and a final research paper. The meets-with courses include "Angels, Demons and Nudes: Early Netherlandish painting;" "Renaissances and Reformations;" "Death and Magic in Renaissance Art;" "The Artist as Scientist." Prereq: None
Typically Offered: Fall, Spring

ART HIST 749 Topics in Architectural History Credits: 3
This graduate-level topics course typically meets with an intermediate to advanced level lecture course. However, the requirements for graduate students are different, consisting of journal entries, presentations, and a substantial research paper as well as attendance and participation in the lectures and activities. Topic varies but may include such topics as "History of American Vernacular Architecture and Landscapes;" "Frank Lloyd Wright and Modernism;" "Domestic Spaces;" and "Signature Buildings in World Architecture." Prereq: Graduate or professional standing
Typically Offered: Occasionally

ART HIST 764 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di
Typically Offered: Occasionally

ART HIST 775 Topics in Japanese Art History Credits: 3
This course typically meets with an intermediate to advanced level lecture course. However, the requirements for graduate students are different, consisting of journal entries, presentations, and a substantial research paper. Meets-with courses include "Arts of Japan," "Japanese Ceramics and Allied Arts," and "Art and Religious Practice in Medieval Japan." Prereq: None
Typically Offered: Fall, Spring

ART HIST 776 Topics in Chinese Art History Credits: 3
This course typically meets with an intermediate to advanced level lecture course. However, the requirements for graduate students are different, consisting of journal entries, presentations, and a substantial research paper. Meets-with courses include "Early Chinese Art: From Antiquity to the Tenth Century," "Later Chinese Art: From Tenth Century to Contemporary," and "Topics in Asian Art." Prereq: Graduate or professional standing
Typically Offered: Occasionally

ART HIST 779 Topics in Architecture & Urbanism of Asia Credits: 3
This course typically meets with an intermediate to advanced level lecture course. However, the requirements for graduate students are different consisting of a substantial research paper in addition to course assignments. Meets-with courses include "Cities of Asia." Prereq: Graduate or professional standing
Typically Offered: Fall, Spring
ART HIST 797 Curatorial Studies Internships (Directed Study) Credits: 3
This 3-credit directed study fulfills the requirement for the new graduate certificate program in Curatorial Studies, and will be specifically used to give students credit for applied learning experiences in museums and other curatorial settings. Students must identify internship possibilities and have them approved for credit by the faculty member who will serve as instructor of record, and oversee the academic side of the internship. The nature of the internship will vary according to the host institution, but to be accepted for credit, it must have a substantial research component. Examples include but are not limited to: curating an exhibition or permanent collection display; producing w
Typically Offered: Not Applicable

ART HIST 799 Independent Study Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Fall, Spring, Summer

ART HIST 800 Seminar: Special Topics in Art History Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

ART HIST 801 Historiography, Theory and Methods in Visual Culture Credits: 3
Prepares student for graduate work in the transdisciplinary study of Visual Cultures by building on the knowledge, theories, and methods that are fundamental to the discipline. It will develop skills in critical reading, research, analysis, writing, and oral presentation. Prereq: Grad st & cons inst
Typically Offered: Fall

ART HIST 802 Visual Cultures: Topics in Visual Cultures Credits: 3
Content will vary to facilitate in-depth engagement of critical facts, theories, and images in specific areas of specialization. Prereq: Graduate standing & consent of instructor
Typically Offered: Fall, Spring

ART HIST 805 Seminar-Ancient Art and Architecture Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART HIST 815 Seminar-Medieval Art Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART HIST 825 Seminar-Italian Renaissance Art Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

ART HIST 835 Seminar-Northern European Art Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

ART HIST 855 Seminar-19th Century European Art Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ART HIST 856 Graduate Seminar in Twentieth Century European Art Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ART HIST 863 Seminar in Material Culture Credits: 3
Interdisciplinary study, at the graduate level, focusing on the way people use objects and environments to express identities and relationships in households, communities, and larger social/economic systems. Prereq: Graduate standing and consent of instructor
Typically Offered: Spring

ART HIST 865 Seminar-American Art Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally
ART HIST 867 Seminar-American Architecture Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

ART HIST 875 Seminar in Japanese Art Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

ART HIST 876 Seminar in Chinese Art Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

ART HIST 879 Seminar in African Art Credits: 3
Critical examination of selected theoretical and methodological issues affecting the study of African art and architecture in their historical and cultural perspectives. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ART HIST 990 Research and Thesis Credits: 3
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

ASIAN AMERICAN STUDIES

ASIAN AM 101 Introduction to Asian American Studies Credits: 3
Introduction to the historical, sociological, anthropological, political, and cultural study of Americans of Asian ancestry. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASIAN AM 102 Introduction to Comparative Ethnic Studies Credits: 3 - 4
This course introduces students to a multicultural history of the United States, focusing on each of the major ethnic groups: European Americans, African Americans, Native Americans, Chicano/as, Latino/as and Asian Americans. Prereq: Fr and So only; others by cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ASIAN AM 121 Asian American Movement Credits: 3
Techniques of exercises and movement forms derived from several Asian cultures as taught in the United States. Studied in the context of the construction and expression of ethnic and cultural identity. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 150 Literature & Culture of Asian America Credits: 3
Since the 19th century, "America" has often been defined by its relationship with "Asia," through cultural influence, immigration, imperialism, and war. This course traces the role of Asia and Asians in American literature and culture, from the Chinese and Japanese cultural influences that helped shape literary modernism to the rise of a distinctive culture produced by Asian immigrants to America and their descendants. Prereq: None
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 160 Asian American History: Movement and Dislocation Credits: 3 - 4
Examines the impact of colonialism, war, and capitalism on the movement of Asians to the U.S. Considers how racial, gendered, class, sexual, and national formations within the U.S. structured Asian immigration to North America. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 161 Asian American History: Settlement and National Belonging Credits: 3 - 4
Examines the social, cultural, and political citizenship of Asians in the U.S. with particular emphasis on diaspora, transnationality, and place. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ASIAN AM 220 Ethnic Movements in the United States Credits: 3 - 4
Sociological analysis of historical and recent ethnic/racial conflict and movements in the U.S., including the
relations between European Americans, African Americans, Mexican Americans, Native Americans, and Asian
Americans, with additional material on other groups and relations. Prereq: Satisfied Comm A requirement
Ethnic Studies: Yes  General Education: COM B  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit:
Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 240 Topics in Asian American Studies Credits: 3
An examination of specific themes in Asian American life and culture. Topics may include comparative analyses
of Asian American communities, contemporary Asian American experience, and the specific concerns and
histories of individual Asian groups in America, such as Korean, Hmong, South Asian, Southeast Asian, Chinese
and Japanese. Prereq: So st or cons inst
Ethnic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 246 Southeast Asian Refugees of the "Cold" War Credits: 4
In-depth study of the peoples, conflicts, and wars in Cambodia, Laos, and Vietnam, with emphasis on the Cold
War era (1945-1990) and on the resulting migration and resettlement of over one million Hmong, Khmer, Lao, and
Vietnamese in the United States. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soci Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Spring

ASIAN AM 260 Topics in Asian American Culture Credits: 3
Themes in Asian American arts. Topics may include drama, dance, film, creative writing and visual arts.
Ethnic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 270 A Survey of Asian American Literature Credits: 3
Survey of Asian American literature from 1880 to present. Prereq: 6 credits of introductory literature or consent
of instructor
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASIAN AM 276 Chinese Migrations since 1500 Credits: 3 - 4
Introduces the comparative history of Chinese migrations to the U.S. and world. Examines patterns of movement;
imagined communities through cultural identity, citizenship, queerness, heritage tourism, studying abroad, and
transnational adoption; as well as sites of cultural production such as food, literature, architecture, and cinema.
Prereq: Sophomore standing or consent of instructor
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

ASIAN AM 420 Asian Americans and Media Credits: 3
Examines representations of Asian American in American media using historical, analytical, and critical
approaches. Issues of cultural production, identity, race, politics, and gender are linked to examinations of specific
media forms. Prereq: Com Arts 347 or So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically
Offered: Occasionally

ASIAN AM 440 Special Topics in the Asian American Studies Program Credits: 3
Topics vary for this course. Please see Asian American website for description for the semester you are taking
the course. Topics will have some content about Asian Americans of different ethnic groups (e.g. Hmong,
Southeast Asian, East Asian Americans -Japanese, Chinese, Korean, Indian, etc.). THIS COURSE DOES NOT
PROVIDE ETHNIC STUDIES CREDIT. THIS COURSE
MAY INCLUDE SERVICE LEARNING OR COMMUNITY BASED RESEARCH/FIELD STUDIES ACTIVITIES.
Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 443 Mutual Perceptions of Racial Minorities Credits: 3
Survey course on the mutual perceptions of primarily people of African and Asian ancestry. It focuses on how
these groups evaluate perceive and interact with one another and others such as Native Americans, whites and
Hispanics. Social psychological perspectives are highlighted as is an international overview. Prereq: Afro-Amer
151 or 673
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit
Typically Offered: Fall
ASIAN AM 462 Topic in Asian American Literature Credits: 3
Topics will vary. All topics will emphasize the following learning outcomes: awareness of history's impact on the present, ability to recognize and question assumptions, development of critical thinking skills, awareness of relations between self and others, and effective participation in a multicultural society. Prereq: Six (6) credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ASIAN AM 463 Race and Sexuality in American Literature Credits: 3
Explores the intersection between race and sexuality in American literature with an emphasis on sex/gender difference, feminism, transgenderism, and nationalism. Focuses on the nature of literature as advocacy, with an emphasis on Asian-American issues. Students who have taken English 654 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ASIAN AM 464 Asian American Women Writers Credits: 3
A study of major texts by Asian American women writers. Prereq: 6 credits of introductory literature or consent of instructor
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASIAN AM 465 Asian American Poetry Credits: 3
Throughout the history of Asian America, poetry has been a vehicle for the creation and exploration of an Asian American voice; in poetry we can see the continuing struggle over what form Asian American expression will take. Will it follow Asian or European models? Will it employ traditional forms, or experiment in search of new styles? Will it be individual or collective, introspective or political? We will explore these questions through a study of a wide range of Asian American poets from a variety of historical periods and ethnicities, including Janice Mirikitani, Lawson Fusao Inada, Li-Young Lee, John Yau, Myung Mi Kim, and Linh Dinh. Prereq: 6 credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ASIAN AM 540 Special Topics Credits: 3
Social science themes in Asian American studies. Topics may include the family, economics, poverty, inter-racial conflicts and cooperation, South Asian Americans.
Ethnic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASIAN AM 560 Humanities Topics Credits: 3
Topics in the arts and humanities that illuminate the Asian American experience.
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 662 Mass Media and Minorities Credits: 4
Representations of minority groups in U.S. news and entertainment mass media. Historical, social, political, economic, and other factors influencing the mass mediated depictions of minorities. Prereq: Junior standing
Ethnic Studies: Yes  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASIAN AM 699 Independent Study: Directed Readings in Asian American Studies Credits: 1 - 4
An independent studies course to allow students at an advanced level to pursue individual projects/subjects. Prereq: 9 cr in Asian American studies
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASTRON 100 Survey of Astronomy Credits: 4
Modern exploration of the solar system; our galaxy of stars, gas and dust; how stars are born, age and die; unusual objects such as exploding stars, neutron stars, black holes, and exploding galaxies; other galaxies and groups of galaxies; current ideas about the large-scale structure and evolution of the universe; optional telescope viewing sessions. Prereq: Completion of QR-A. Open to all Undergrads. Stds may not receive cr for both Astron 100 & either Astron 103 or 104. Not open to stdts who meet prereq for Astron 200
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ASTRON 103 The Evolving Universe: Stars, Galaxies, and Cosmology Credits: 3
The universe is vast and ever-changing. Includes lifecycles of stars; supernovae and creation of elements; white dwarfs, pulsars and black holes; the Milky Way and galaxies; distances of stars and galaxies; quasars; expansion of universe; open and closed universes; the big bang. Prereq: Completion of QR-A. Open to all Undergrads. Stdts may not receive cr for both Astron 100 & 103. Not open to stdts who meet prereq for Astron 200
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASTRON 104 Our Exploration of the Solar System Credits: 3
Humanity is linked to the solar system in countless ways. Includes the sky and celestial motions; ancient astronomy; the Copernican revolution; gravity, orbits, and interplanetary travel; formation of solar system; survey of sun, planets and moons; asteroids, meteors and comets; origin of life. Prereq: Completion of QR-A. Open to all Undergrads. Stdts may not receive cr for both Astron 100 & 104
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASTRON 113 Hands on the Universe Credits: 1
Exploration of the universe via computer simulation of astronomical observations. Examples of topics include telescopes, the distances to stars, the spectra of the stars, star clusters, the Hubble expansion, and the large scale structure of the universe. Discovery through observation, hypothesis, and quantitative analysis is emphasized. Prereq: Open to all Undergrads. Intended to be taken concurrently with Astron 103. Prev Astron 100 or Astron 103 is also completed. Not open to stdts who have taken Astron 110
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ASTRON 114 Hands on the Solar System Credits: 1
Exploration via computer simulation of astronomical observations. Examples of topics include the sky and celestial motions, Jupiter's moons, rocketry, colonization, and extra-solar planets. Naked-eye and telescope observations will also be made. Discovery through observation, hypothesis, and quantitative analysis is emphasized. Prereq: Open to all Undergrads. Intended to be taken concurrently with Astron 104. Prev Astron 100 or Astron 104 is also completed. Not open to stdts who have taken Astron 110
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ASTRON 150 Topics in Astronomy Credits: 2
This course will intensively study selected topics of modern astronomy. Examples include missions to the planets, formation of stars and planets, end states of stellar evolution (supernovae, white dwarfs, pulsars, black holes), origin and evolution of the universe. Prereq: Astron 100, 103, or 104, as appropriate for topic, or consent of instructor.
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASTRON 160 Life in the Universe Credits: 2
An examination of the origin and evolution of life in the universe based on our knowledge of astronomy, biology, and geology. Includes discussions on the search for extraterrestrial life and the history of life in our solar system. Prereq: Open to all undergrads
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASTRON 199 Directed Study Credits: 1 - 3
Prereq: Astron 100 or equiv or cons inst. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ASTRON 200 The Physical Universe Credits: 3
Modern astrophysics involves applying physical principles to understand astronomical phenomena. Includes the solar system, stars, nebulae, galaxies, and cosmology, with emphasis on origins and evolution. Some nighttime observation with telescopes required. Prereq: Physics 202 or 208 or cons inst. Not open to stdts who have taken Astron 100 or 103. Simple calculus required
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ASTRON 206 History of Astronomy and Cosmology Credits: 3
The development of astronomical knowledge and cosmological views from the earliest times to the present, viewed in their social, philosophical, and technological contexts. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite(s)</th>
<th>Breadth</th>
<th>Level</th>
<th>Credit Type</th>
<th>Typically Offered</th>
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</thead>
<tbody>
<tr>
<td>ASTRON 236</td>
<td>The History of Matter in the Universe</td>
<td>3</td>
<td>Multidisciplinary study of how the distribution of elements in the Universe has changed over the last 10-15 billion years by tracing the history of matter from the Big Bang to the present composition of the Earth. The course will emphasize connections between astronomy, geology, and chemistry. Readings will draw both on scientific journals and the popular press to allow us to engage the material on multiple levels. This course meets the University's Com-B requirement. 1 yr college chem or physics, or cons inst. Open to Fr</td>
<td>COM B</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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<tr>
<td>ASTRON 310</td>
<td>Stellar Astrophysics</td>
<td>3</td>
<td>Properties of normal and peculiar stars as found from an analysis of the radiation they emit; introduction to radiation transfer. Theory of stellar atmospheres, interiors, and evolution. Prereq: Math 222 &amp; Physics 205 or 241</td>
<td>Physical Science</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall</td>
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<tr>
<td>ASTRON 320</td>
<td>The Interstellar Medium</td>
<td>3</td>
<td>Properties of neutral and ionized interstellar gas, giant molecular clouds, the warm and hot intercloud medium, supernova remnants, and interstellar dust. Physical processes in low density gases including radiation transfer, excitation and ionization of interstellar atoms and molecules, and the interaction between gas and dust. Prereq: Math 222 and Physics 205 or 241</td>
<td>Physical Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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<tr>
<td>ASTRON 330</td>
<td>Galaxies</td>
<td>3</td>
<td>Distribution of stars, gas, and dust within our Milky Way, and their motions. Nearby galaxies: our Local Group. Optical, radio, and other techniques for observing galaxies. Composition and motions of other galaxies; galaxies with active nuclei; galaxy formation. Prereq: Astron 310</td>
<td>Physical Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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<tr>
<td>ASTRON 335</td>
<td>Cosmology</td>
<td>3</td>
<td>Introduction to the study of our Universe as a whole. Distribution of matter on the largest scales. Equations for cosmic expansion; making observations in an expanding curved spacetime. Nucleosynthesis and other tests of the Big Bang hypothesis. Gravitational collapse and the growth of structure. Prereq: Astron 310</td>
<td>Physical Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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<tr>
<td>ASTRON 340</td>
<td>Solar System Astrophysics</td>
<td>3</td>
<td>Properties of solar system objects, solar atmospheric phenomena, physics of planetary atmospheres, results of recent planetary missions, comets, origin of the solar system. Prereq: Math 222 &amp; Physics 205 or 241</td>
<td>Physical Science</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>ASTRON 460</td>
<td>Experiences in Astronomical Observing</td>
<td>1</td>
<td>A basic introduction into astronomical research by undertaking a small observing project with optical and/or radio telescopes. Topics covered are: understanding the astronomical literature, observing and data reduction, writing scientific reports and papers, presenting scientific results, and basics of scientific ethics. Prereq: Cons inst. One of Astron 310, 320, 330, or 500 advised</td>
<td>Physical Science</td>
<td>Intermediate/Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>ASTRON 500</td>
<td>Techniques of Modern Observational Astrophysics</td>
<td>3</td>
<td>An introduction to astrophysics data collection. Students will be familiarized with the concepts, techniques, skills and resources needed to plan, obtain, reduce and interpret observations of astronomical objects. Prereq: Grad st or Astron 310 &amp; cons inst</td>
<td>Physical Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>ASTRON 510</td>
<td>Radio Astronomy Laboratory</td>
<td>2</td>
<td>An introduction to the techniques of modern observational radio astronomy. The course covers fundamentals of radio astronomy, modern radio instrumentation, and observing techniques, through a mixture of classroom lectures, discussions, and hands-on observational projects with a small radio telescope. Prereq: Cons inst</td>
<td>Physical Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Occasionally</td>
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<tr>
<td>ASTRON 550</td>
<td>Astrodynamics</td>
<td>3</td>
<td>Coordinate system transformations, central force motion, two body problem, three and n-body problem, theory of orbital perturbations, artificial satellites, elementary transfer orbits, and elementary rocket dynamics. Prereq: EMA 202 or 221; or Physics 311 or con reg; or cons inst</td>
<td>Physical Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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</table>
ASTRON 620 Seminar in Astrophysical Topics Credits: 1 - 3
Current problems; topic changes. Prereq: Astron 310 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ASTRON 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASTRON 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASTRON 691 Senior Thesis Credits: 2 - 3
Prereq: Sr st astronomy-physics major & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASTRON 692 Senior Thesis Credits: 2 - 3
Prereq: Astron 691 & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASTRON 699 Directed Study Credits: 1 - 6
Prereq: L & S Undergrads need 2.5, Jr or Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ASTRON 700 Basic Astrophysics I Credits: 2
Thermodynamics, atomic and molecular spectra, ionization and excitation, line and continuum opacities. Synchrotron radiation, Compton scattering, X-ray spectra. Radiative transfer, simple model atmospheres, radiative and convective energy transport. Prereq: Grad st in astronomy or physics, or cons inst
Typically Offered: Occasionally

ASTRON 702 Basic Astrophysics II Credits: 2
Basic particle and fluid dynamics of stellar and gaseous systems in astrophysics. Review of gravitational dynamics, 2-body relaxation, phase space, basic equations of fluid dynamics, waves, shocks, winds accretion, instabilities. Prereq: Grad st in astronomy or physics, or cons inst
Typically Offered: Occasionally

ASTRON 715 Stellar Interiors and Evolution Credits: 2
Physical principles, equilibrium of gaseous spheres, energy transport, energy generation, nucleosynthesis, main sequence red giant and electron degenerate stars. Advanced topics such as origins of stellar variability, binary star evolution, star formation, supernovae explosions, evolution with mass loss. Prereq: Astron 700 or cons inst
Typically Offered: Occasionally

ASTRON 720 The Interstellar Medium I: Basic Processes Credits: 2
Observational techniques for interstellar medium studies, overview of the role of interstellar gas in galaxies, dynamics, energetics, major theories of structure and evolution, introduction to star formations and supernova remnant evolution. Prereq: Astron 700
Typically Offered: Occasionally

ASTRON 730 Galaxies Credits: 2
Stellar content and dynamics of the Milky Way and other galaxies; galaxy types, evolution of normal galaxies, active nuclei, quasars, radio galaxies. Prereq: Grad st in Astron or cons inst
Typically Offered: Occasionally

ASTRON 735 Observational Cosmology Credits: 2
Extragalactic distance scale; groups and clusters of galaxies; distribution of galaxies and radio sources. Introduction to general relativity, cosmological models, microwave background, early universe, galaxy formation. Prereq: Grad st in Astron or cons inst
Typically Offered: Occasionally

ASTRON 910 Seminar in Astrophysics Credits: 0 - 1
Current topics. Prereq: Cons inst
Typically Offered: Occasionally
ASTRON 920 Seminar-Astrophysical Topics  Credits: 1 - 3
Current problems; topic changes.  Prereq:  Grad st in astron or cons inst
Typically Offered: Occasionally

ASTRON 990 Research and Thesis  Credits: 1 - 12
Prereq:  Grad st in astron
Typically Offered: Occasionally

ASTRON 999 Advanced Independent Reading  Credits: 1 - 2
Prereq:  Grad st in astron
Typically Offered: Occasionally

ATMOSPHERIC & OCEANIC SCIENCES

ATM OCN 100 Weather and Climate  Credits: 3
Nature and variability of wind, temperature, cloud and precipitation. Storm systems, fronts, thunderstorms, tornadoes and their prediction. Air composition and pollution. Global winds, seasonal changes, climate and climatic change.  Prereq:  Open to Fr. Stds may not receive cr for both Atm Ocn 100 & 101
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 101 Weather and Climate  Credits: 4
Nature and variability of wind, temperature, clouds and precipitation. Discussion session will include map analyses and basic quantitative lab exercises. Storm systems, fronts, thunderstorms, tornadoes and their prediction. Air composition and pollution. Global winds, seasonal changes, climate and climatic change.  Prereq:  Open to Fr. Stds may not receive cr for both Atm Ocn 100 & 101
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 102 Climate and Climate Change  Credits: 3
This course describes the basic climate principles governing the climate system. It describes the climate and climate variability at present, climate evolution in the past, and the projected climate change into the future. The scientific principles underlying the natural and anthropogenic greenhouse effect and climate model forecasts are elucidated.  Prereq:  None
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 105 Survey of Oceanography  Credits: 3 - 4
Nature and behavior of ocean water, interaction of oceans and atmosphere, structure of the ocean floor, life in the oceans, our relationship to the marine environment.  Prereq:  High school physics or chem recommended. Open to Freshmen
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 121 Atmospheric Environment and Society  Credits: 2
Changing interactions between humans, other animals and plants, and the atmospheric environment, both in time and space.  Prereq:  Open to Fr
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 132 Earth's Water: Natural Science and Human Use  Credits: 3
Water is central to the functioning of planet Earth. As humans increase their impact on Earth's systems and cohabitants, our understanding of the multiple roles of water becomes critical to finding sustainable strategies for human and exosystem health. This course explores the science of Earth's hydrosphere, with constant attention to human uses and impacts.  Prereq:  HS math & science. Open to Fr
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ATM OCN 171 Global Change: Atmospheric Issues and Problems  Credits: 2 - 3
Atmospheric problems of global significance. Greenhouse warming, ozone layer, acid rain, climate change. Study based on elementary principles of atmospheric science. Systems approach applied to changing atmospheric composition. Interactions among geochemical cycles, anthropogenic inputs and other parts of the environment.
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ATM OCN 252 Introduction to Weather Analysis and Forecasting Credits: 3
Elementary issues in dynamics, thermodynamics, local and synoptic-scale circulations examined in the context of daily diagnoses and forecasting of the weather. Includes analysis of surface and upper air observations, satellite and radar data, output from numerical weather prediction models. Prereq: Physics 201 or 207, Math 221 or cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ATM OCN 310 Dynamics of the Atmosphere and Ocean I Credits: 3
Introduction to theory of fluid motions for atmosphere and ocean. Elementary kinematics, fundamental forces, effects of earth's gravity and rotation, concepts and applications of hydrostatic and geostrophic balance. Prereq: Physics 208 or con reg & Math 234 or con reg
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ATM OCN 311 Dynamics of the Atmosphere and Ocean II Credits: 3
Intermediate theory of fluid motions for atmosphere and ocean. Emphasis on large scale applications and basic theory for geophysical wave types. Thermal wind shear, frictional flow, vorticity concepts, Rossby waves, Sverdrupean flow. Prereq: Atm Ocn 310, 330
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ATM OCN 323 Science of Climate Change Credits: 3
This is a calculus-based treatment of climate system physics and the mechanisms of modern-day anthropogenic climate change. By the end of this course, students will understand: a. How solar radiation and rotating fluid dynamics determine the basic climate state; b. Mechanisms of natural variability and change in climate; c. Why anthropogenic climate change is occurring; and d. Which scientific uncertainties are most important to estimates of 21st century change. Prereq: PHYS 103, 201 or 207; and MATH 217, 221 or 275. Not open to students who have enrolled in ATM OCN 425
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ATM OCN 330 Physics of the Atmosphere and Ocean I Credits: 3
Physical variables, laws, characteristics and direct measurements for atmosphere and ocean. Thermodynamics and moist atmospheric processes. Basic physics of clouds, precipitation, and chemical constituents. Prereq: Physics 208 or con reg & Math 234 or con reg
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ATM OCN 331 Climatic Environments of the Past Credits: 3
Climatic change at timescales from the last 1,000,000 years to the last 1000 years. Examines how climate variability arises from interplay between external forcings, feedbacks within the earth system, and (more recently) human activity. Prereq: Atm Ocn/Geog/Envir St 121, or Geog 120, 123, 124 or 127 or Atm Ocn 100
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ATM OCN 332 Global Warming: Science and Impacts Credits: 3
Climate change is underway and will continue into the foreseeable future. This course offers a fundamental understanding of how and why global warming is happening, and what to expect in the future. Together, we will investigate and discuss the evidence for change, the science that explains these observations, predicted impacts on humans and ecosystems, and the societal debate over proposed solutions. Prereq: Geog/IES 120 or 127 or Atm Ocn 100 or equivalent recommended. Freshmen permitted only with consent of instructor
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ATM OCN 340 Physics of the Atmosphere and Ocean II Credits: 3
Radiation, energy budget, and cloud physics. Scattering, absorption, emission and diabatic heating by shortwave and longwave processes. Introduction to cloud physics including cloud nucleation processes, particle growth, precipitation development, and convective cloud processes. Prereq: Atmospheric-Oceanic 330
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ATM OCN 401 Topics in Meteorology Credits: 2 - 3
Special topics to be given as the need and opportunity arise. May be repeated for credit.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ATM OCN 405 AOS Senior Capstone Seminar Credits: 1
Required senior seminar for AOS majors provides a synthesis and overview. Research on a topic of the student's choosing is presented at the end. Prereq: Atm Ocn 310, 311, 330, 340
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
ATM OCN 425 Global Climate Processes Credits: 3
Overview of physical processes of the atmosphere and its coupling to the ocean and land. Understanding its seasonal climatology and variability. Synthesis through application of junior AOS core dynamics and physics to quantitatively understand diabatic, transport, and dissipative processes. Examples include global warming, air-ocean coupling, ENSO, ozone hole, tropospheric water and chemistry issues, diurnal to interannual time scales. Prereq: Atm Ocn 311, 340, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ATM OCN 441 Radar and Satellite Meteorology Credits: 3
Provides undergraduate students with the necessary knowledge about radar and satellite meteorology. Prereq: Atm Ocn 340 or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ATM OCN 452 Synoptic Laboratory I: The Frontal Cyclone Credits: 4
Cyclone and frontal theory; case studies illustrating the structure and evolution of the frontal cyclone; diagnostic techniques: interpretation of satellite photographs, preparation of vertical cross sections and isentropic analysis. Prereq: Atm Ocn 311 & 340, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ATM OCN 453 Synoptic Laboratory II: Mesoscale Meteorology Credits: 4
Local wind systems, thunderstorms, mesoscale convection systems, interactions with synoptic scale weather. Analysis, prediction, nowcasting and observation of mesoscale weather, including interpretation of satellite and radar information. Prereq: Atm Ocn 311 & 340, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ATM OCN 455 Severe Storm Forcasting and Observation Credits: 1
Application of severe storm forecasting and nowcasting techniques under operational conditions. Severe storm observation and photography (storm chasing), application in the field. Prereq: Atm Ocn 453 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ATM OCN 508 Teacher Workshop in Satellite Meteorology Credits: 1 - 2
This workshop is designed to address the professional development needs for K-12 science teachers. Typically Offered: Occasionally

ATM OCN 509 Teacher Workshop in Earth System Science - Web Credits: 1 - 3
These courses are designed to address the professional development needs for K-12 science teachers in the earth and space sciences. Topics will be designed to meet the Wisconsin State Science standards and be presented by science and education experts. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

ATM OCN 520 Bioclimatology Credits: 3
How climate systems and biological organisms operate and interact at the global scale and the implications of this for climate change, ecosystem ecology and human land use. Prereq: Junior standing and ATM OCN 101, ATM OCN 252 or ATM OCN 323, and BIOLOGY 152
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ATM OCN 522 Tropical Meteorology Credits: 3
Characteristics of the tropical atmosphere; local and diurnal phenomena; tropical synoptic systems; circulation and energetics; mechanisms of tropical climate variations. Prereq: Atm Ocn 311, 340
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 528 Past Climates and Climatic Change Credits: 3
Climatic change throughout geologic time, especially in the last 10 millennia; mechanisms of change, evidence, and criteria, paleogeography and paleoclimatology, climate models. Prereq: Jr st or one year calculus-based college physics or introduction to weather and climate; or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 532 Environmental Biophysics Credits: 3
Plant-environment interactions with particular reference to energy exchanges and water relations. Models are used to provide a quantitative synthesis of information from plant physiology, soil physics, and micrometeorology with some consideration of plant-pest interactions. Prereq: Intro calc, Physics 103, Botany 130 & comp programing; or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
ATM OCN 535 Atmospheric Dispersion and Air Pollution Credits: 3
Physical principles of atmospheric transport processes. Variation of transport in time and place. Local and regional concentrations of pollutants. Environmental implications of air pollution and control strategies. Prereq: Math 212, Physics 202, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ATM OCN 573 Computational Methods in Atmospheric and Oceanic Sciences Credits: 2
Provides students with an introduction to multiple programming languages and technical computing methods used in the Atmospheric and Oceanic Sciences. Data analysis methods and software development for specialized applications related to the field are also highlighted. Prereq: MATH 234 and (COMP SCI 301 or COMP SCI 302)
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ATM OCN 575 Climatological Analysis Credits: 3
Mathematical and statistical tools applicable to the investigation of climatological problems; nature and treatment of climatological data. Prereq: ATM Ocn 311 & 340, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 601 Challenging Problems of Atmospheric and Oceanic Sciences Credits: 2 - 3
Individual staff members weave detailed subjects into the general fabric of the physical environment. Prereq: Cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ATM OCN 610 Geophysical Fluid Dynamics I Credits: 3
Basic dynamic concepts: equations of motion, basic approximations, Coriolis force, wave motions, normal modes, gravity waves, frictional turbulence and convective processes, geostrophic adjustment, scaling argument, effects of rotation on wave motions. Vorticity and potential vorticity. Prereq: Physics 208, Math 234 & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ATM OCN 611 Geophysical Fluid Dynamics II Credits: 3
Quasi-geostrophic motion, potential vorticity equations, E-P fluxes, Rossby waves, boundary layer processes, wind-driven ocean circulation and western boundary currents, barotropic and baroclinic instability, tropical flows. Prereq: Atm Ocn 610 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 615 Laboratory in Rotating Fluid Dynamics Credits: 1
Rotating fluid experiments, theory and data analysis are used to deepen understanding of geophysical fluid dynamics and observed phenomena in the atmosphere and ocean. The course will be primarily in the laboratory -- focusing on hands-on experiences in the rotating tank lab and with real data. Prereq: ATM OCN 311 or ATM OCN 610
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ATM OCN 630 Introduction to Atmospheric and Oceanic Physics Credits: 3
Graduate level core course, covering thermodynamics theory of multiphase systems, thermodynamic analysis of atmosphere, microphysical processes in the atmosphere, atmospheric and oceanic chemical processes, conduction of heat and moisture into the atmosphere from ocean and land surface. Prereq: Physics 208, Math 234 & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ATM OCN 637 Cloud Physics Credits: 3 - 4
Processes of cloud formation, growth, and dissipation from the standpoint of both the cloud particles and the whole cloud as a dynamic entity. Prereq: Atm Ocn 311 & 340, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 638 Atmospheric Chemistry Credits: 3
Evolution of the atmosphere, chemical structure, instrumental analysis, trace gases, aerosol mechanics, chemical processes. Prereq: One year calculus-based college physics, chemistry, and calculus for science majors, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ATM OCN 640 Radiation in the Atmosphere and Ocean Credits: 3
Graduate level core course in radiation. Introduction to basic laws, radiative transfer under clear sky conditions, scattering by individual particles, multiple scattering, radiative properties of clouds and aerosols, energy budget, miscellaneous applications. Prereq: Physics 208, Math 234 & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ATM OCN 650 Analysis of Atmospheric Systems Credits: 3
Graduate level core lab and lecture course designed to quantitatively analyze, descriptively define and physically interpret atmospheric structures, climate and flow systems depicted by observations on scales ranging from the global circulation to those of turbulence in the planetary boundary layer. Observation and analysis strategies. Prereq: Atm Ocn 610, 630 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ATM OCN 651 Synoptic-Dynamic Laboratory Credits: 3
Quantitative lab applications of atmospheric dynamics and thermodynamics to synoptic systems. Jet stream systems, cyclone development, global air motions, performance of numerical prediction models, local surface forecasting. Prereq: Atm Ocn 610 & 630 & cons inst, or Atm Ocn 650
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ATM OCN 660 Introduction to Physical Oceanography Credits: 3
Physical properties of sea water: ocean climatology, water, salt and heat budget, measurements, ocean circulation and water mass of the world ocean, thermocline, thermohaline, equatorial ocean and southern ocean. Prereq: Physics 208, Math 234 & cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ATM OCN 681 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 682 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 691 Senior Thesis Credits: 2 - 3
Prereq: A) atm ocn major; B) Atm Ocn 311, 340 or con reg; C) approval Assoc Chairman of Undergrad Affairs
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 692 Senior Thesis Credits: 2 - 3
Prereq: A) atm ocn major; B) Atm Ocn 311, 340 or con reg; C) approval Assoc Chairman of Undergrad Affairs
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 698 Directed Study Credits: 1 - 5
Offered on a Cr/N grading basis. Does not count toward Grad residence credit. Prereq: Jr or Sr st; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 699 Directed Study Credits: 1 - 5
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ATM OCN 701 The Chemistry of Air Pollution Credits: 2
The course will cover background and modern research methods for the application of chemical analysis tools to understanding of the origin, composition, and the chemical transformations of pollutants that occur in the atmosphere. Emphasis will be directed at the pollutants impacting human health, climate change, and ecosystem degradation. Approximately half of the course materials will be taken from the scientific literature and will provide the opportunity to advance skills in the critical reading of journal articles. The course is directed at graduate students conducting research and interested in air pollution and environmental chemistry. As part of the course, students will gain experien
Typically Offered: Every Other Fall
ATM OCN 705 The Middle Atmosphere Credits: 3
Dynamics, chemistry and radiation of the stratosphere and mesosphere. Structure and composition. Observing
Modeling the middle atmosphere. Ozone layer. Greenhouse effect. Prereq: Atm Ocn 610, 630 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  Typically Offered: Occasionally

ATM OCN 712 General Circulation of the Atmosphere Credits: 3
The theory of the general circulation with emphasis on the sources, sinks, and transport of mass, angular
momentum, and energy that serve to maintain the circumpolar vortex. Prereq: Atm Ocn 610, 630 or equiv
Typically Offered: Occasionally

ATM OCN 718 Dynamics of Moist Convective Systems Credits: 3
Governing equations for non-hydrostatic dynamics, mixed phase thermodynamics and microphysics. Cumulus
parameterization and scale interactions. Application to theoretical and numerical models of thunderstorms (and
attendant weather phenomena) and Mesoscale Convective Systems in the extra tropics and tropics. Prereq:
Atm Ocn 610, 630
Typically Offered: Occasionally

ATM OCN 740 Advanced Atmospheric Radiation Credits: 3
The course deals with advanced topics in atmospheric radiative transfer. These include numerical methods to
solve the radiative transfer equation, theory of scattering by spherical and non-spherical particles and advanced
topics in gas absorption. Prereq: Atm Ocn 640
Typically Offered: Spring

ATM OCN 745 Meteorological Satellite Applications Credits: 2 - 3
Use of satellite imagery and measurements in meteorological research and operations; orbital characteristics;
navigation; instrumentation. Prereq: Atm Ocn 640 or 1 yr calc-based college physics & Math 234
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ATM OCN 750 Problems in Oceanography Credits: 3
Introduction to techniques used in the study of the biology, chemistry, geology, and physics of the marine
environment. Prereq: Cons inst
Typically Offered: Occasionally

ATM OCN 760 Large-Scale Ocean-Atmosphere Coupling Credits: 3
Various aspects of global ocean-atmosphere coupling and climate variability; global surface flux distribution;
mixed layer dynamics; tropical dynamics and El Nino and Southern Oscillation; extratropical ocean-atmosphere
coupling; interannual to interdecadal climate variability. Prereq: Atm Ocn 611 & 660, or cons inst
L&S Level: Advanced  Typically Offered: Occasionally

ATM OCN 761 Dynamics of Ocean Circulation Credits: 3 - 4
Theories of general oceanic circulation: Sverdrup flow, western boundary layer; thermocline circulation,
recirculation theory, ventilated thermocline theory; thermohaline circulation, abyssal flow, thermohaline instability
and multiple equilibria. Prereq: Atm Ocn 610, 660
L&S Breadth: Physical Science  L&S Level: Advanced  Typically Offered: Occasionally

ATM OCN 771 Numerical Modeling in Meteorology Credits: 3
Advanced techniques for development of meteorological numerical models. Survey of existing models for general
circulation, operational weather prediction, mesoscale convection, and turbulence with emphasis on numerical
methods and solution accuracy. Prereq: Atm Ocn 610, 630 or cons inst
Typically Offered: Occasionally

ATM OCN 773 Boundary Layer Meteorology Credits: 3
Observations of and theories for boundary layers, turbulence, spectra, plumes, dust devils, convection, terrain
effects, and other phenomena in the lowest 2 km of the atmosphere. Prereq: Atm Ocn 311, 340; or 610, 630
L&S Breadth: Physical Science  L&S Level: Advanced  Typically Offered: Occasionally

ATM OCN 801 Topics in Theoretical Meteorology Credits: 2 - 3
Advanced level subjects in dynamics, synoptics, climate-dynamics and atmospheric physics including recent
advances. Prereq: Graduate level gen meteor & consent of instructor
Typically Offered: Occasionally
ATM OCN  900 Seminar-Meteorology Credits: 1 - 2
Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  911 Limnology and Marine Science Seminar Credits: 1
Sections in various fields of zoological research. Prereq: Grad st in limnology & marine sci grad prgm or cons inst
Typically Offered: Occasionally

ATM OCN  915 Seminar-Dynamics Credits: 1 - 2
Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  925 Seminar-Climatology Credits: 1 - 2
Historical climatology with emphasis on the last few centuries. Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  935 Seminar-Physical Meteorology Credits: 1 - 2
Topics in physical meteorology are explored at an advanced graduate level, including severe storms, cloud physics and atmospheric chemistry, depending on instructor. Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  945 Radiation and Remote Sensing Seminar Credits: 1 - 2
Topics in radiation and remote sensing of the atmosphere and ocean. Emphasis will be on current and classical problems in radiative transfer and remote sensing. Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

ATM OCN  955 Seminar - Weather Systems Credits: 1 - 2
Topics in weather systems are explored at an advanced graduate level, including problems in synoptics, mesoscale, and micrometeorological weather phenomena, depending on instructor. Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  965 Seminar-Oceanography Credits: 1 - 2
Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface systems, involving physical geochemical and biological processes, and including interactions with human systems. Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  990 Research Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

ATM OCN  999 Advanced Independent Study Credits: 1 - 6
Prereq: Grad st
Typically Offered: Occasionally

BIOLOGY
BIOLOGY 100 Exploring Biology Credits: 2
A first-year course focused on the core concepts in biology (evolution; transformation of energy and matter; information exchange and storage; structure and function; systems biology), professions in biology, and the foundational skills and knowledge needed for successful academic and post-graduate careers in biology. Prereq: Open to first year students only
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOLOGY 101 Animal Biology Credits: 3
General biological principles. Topics include: evolution, ecology, animal behavior, cell structure and function, genetics and molecular genetics and the physiology of a variety of organ systems emphasizing function in humans. Prereq: Not recommended for students with credit already in Zoology/Biology/Botany 151 or 152
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 102 Animal Biology Laboratory Credits: 2
General concepts of animal biology at an introductory level. The general body plans and strategies used to accomplish the basic tasks of staying alive of 9 major animal groups are studied using preserved and live animals. The diversity within each group of animals is studied by integrating the body plans with the lifestyle and ecology of the animals. The evolutionary relationships between the animals is a major part of the course. Dissections of earthworm, freshwater mussel, squid, sea star, and rat also aid the study of these general principles. Prereq: Not recommended for students with credit already in Zoology/Biology/Botany 151/152
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 130 General Botany Credits: 5
Introduction to the basic principles and concepts of the biology of plants. An integrative approach stressing evolutionary sequences and the relationship between structure and function at succeeding levels of organization: molecule, cell, organism, population, community. Correlated lectures, laboratories, and discussions. Prereq: Open to Fr; not open to stdts who have taken Botany 100 or Botany/Zoology 151-152. HS or coll chem crse recommended
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOLOGY 150 Ways of Knowing Biology Credits: 1
First year students hear presentations from outstanding research faculty in the biological sciences campus-wide. Students visit three research sites as well as attend small group seminars led by faculty. Students are encouraged to explore the possibility of a research experience in their degree program. Prereq: Open to Fr only
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOLOGY 151 Introductory Biology Credits: 5
First semester of a two semester course designed for majors in biological sciences. Topics include: cell structure and function, cellular metabolism (enzymes, respiration, photosynthesis), information flow (DNA, RNA, protein), principles of genetics and selected topics in Animal Physiology. HS chem or concurrent registration in college chemistry strongly advised. Prereq: Not recommended for students with credit already in Zoo/Bio 101, 102 or Botany/Bio 130
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOLOGY 152 Introductory Biology Credits: 5
Second semester of a two semester course designed for majors in biological sciences. Continuation of 151. Topics include: selected topics in plant physiology, a survey of the five major kingdoms of organisms, speciation and evolutionary theory, and ecology at multiple levels of the biological hierarchy. Prereq: Biology/Botany/Zoology 151. Not recommended for students with credit already in Zoology/Biology 101,102 or Botany/Biology 130
General Education: COM B  L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOLOGY 260 Entering Research Part 1 Credits: 1
Seminar course for sophomore or transfer students to begin independent research in science, technology, engineering or mathematics. Taken concurrently with 1-3 research credits with faculty member. Supports independent research experience. Typically Offered: Fall
BIOLOGY 261 Entering Research Part 2 Credits: 1
Seminar course for sophomore or transfer students continuing independent research in science, technology, engineering or mathematics. Taken concurrently with 1-3 research credits with faculty member. Supports independent research experience.
Typically Offered: Spring

BIOLOGY 299 Directed Studies Credits: 1 - 4
Graded on a letter basis. Prereq: Cons inst. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 375 Special Topics Credits: 1 - 5
Prereq: Prerequisite varies with topic
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

BIOLOGY 399 Internship/Field Experience Credits: 1 - 8
Graded on a letter basis. Prereq: So st & cons of supervising inst, advisor & internship progm coordinator
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 522 Evolution Seminar Series-Undergraduate Credits: 1
The Evolution Seminar Series exposes students to diverse topics in contemporary evolutionary biology. Most weeks, one or more guest lecturers present their own primary research on a specialized topic in evolutionary biology. Diverse seminars include perspectives from genetics, ecology, geoscience, zoology, botany, microbiology, systematics, molecular biology, and integrative research. Some weeks feature special topics and discussions on pedagogical, legal, outreach, or other issues in evolutionary biology. Students learn to think critically about methodology, experimental design and interpretation, and how conclusions are reached in evolutionary biology by reading primary and secondary lite
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BIOLOGY 660 Research Mentor Training Practicum Credits: 1
Practicum course for graduate, post-doctoral or senior undergraduate students to be taken concurrently while mentoring an undergraduate engaged in an independent research experience. Prereq:
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

BIOLOGY 675 Special Topics Credits: 1 - 5
Prereq: Prerequisite varies with topic
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

BIOLOGY 681 Senior Honors Thesis Credits: 2 - 3
Graded on a letter basis. Prereq: 2 sem of coll biol & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 682 Senior Honors Thesis Credits: 2 - 3
Graded on a letter basis. Prereq: 2 sem of coll biol & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 691 Senior Thesis Credits: 2 - 3
Graded on a letter basis. Prereq: 2 sem of coll biol & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 692 Senior Thesis Credits: 2 - 3
Graded on a letter basis. Prereq: 2 sem of coll biol & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY 699 Directed Studies Credits: 1 - 4
Graded on a letter basis. Prereq: 2 sem of coll biol & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BIOLOGY CORE CURRICULUM
BIOCORE 381 Evolution, Ecology, and Genetics Credits: 3
Basic principles of ecology and interrelations between individuals, populations, communities, ecosystems and their environment; transmission genetics and introduction to population genetics; origin of life, evolutionary mechanisms, ancestral relationships among species, and the diversity of life. Prereq: Math 221, Chem 104 or 109, previous or concurrent registration in Chem 341 or 343; or consent of instructor
General Education: COM B L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

BIOCORE 382 Evolution, Ecology, and Genetics Laboratory Credits: 2
Writing-intensive course with opportunities for students to make observations and generate and test their own questions. Includes field trips to the Biocore Prairie and local stream, and research projects that focus on genetics and evolution. Prereq: Completion of or concurrent registration in Biocore 381 (or Biocore 301 previously to Fall 2014)
General Education: COM B L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

BIOCORE 383 Cellular Biology Credits: 3
Cellular and molecular basis of life. The main themes are the structure and function of cells and organelles, the flow of energy in cells, and the storage, expression, and regulation of genetic information. Prereq: Biocore 381 (or Biocore 301 previous to Fall 2014), Chem 341 or 343; or consent of instructor
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Spring

BIOCORE 384 Cellular Biology Laboratory Credits: 2
Writing-intensive course with opportunities for students to generate and test their own questions utilizing concepts and procedures of cell biology. Includes research projects in subcellular fractionation, protein structure and enzyme catalysis, molecular genetics of C.elegans worms, and signal transduction in yeast. Prereq: Completion of or concurrent registration in Biocore 383 (or Biocore 303 previous to Spring 2014) or Biochem 501 & Genetics 466. Sophomore or Junior status or consent of instructor
General Education: COM B L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Spring

BIOCORE 401 Peer Mentoring Credits: 1
Weekly seminar for development of mentoring, group facilitation, leadership, and interpersonal skills used in peer learning and leading mentored study groups. This course focuses on the pedagogy, skills, and effective techniques used to facilitate learning in small groups. Activities and assignments include discussion of readings, leading practice facilitation/ problem solving sessions and receiving feedback, development of practice problems and questions from lower order to higher order cognitive levels using Blooms Taxonomy, doing reciprocal mentor observations, and reflective journal assignments. Prereq: BIOCORE 381, 383, and (382 or 384)
L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

BIOCORE 485 Organismal Biology Credits: 3
Physiology course that considers how plants and animals interact with their environments to survive, obtain nutrients, exchange gases, and reproduce, also how the complex systems of neural and endocrine regulation in animals and hormonal and environmental regulation in plants allow cells and organs to communicate. Prereq: Biocore 381 & 383 (or Biocore 301 & 303 previous to Spring 2014); or consent of instructor
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

BIOCORE 486 Organismal Biology Laboratory Credits: 2
Students experience the process of science by collaborating on two multi-week independent experiments to investigate their own questions about animal and plant physiology. Emphasis is on critical thinking required in designing and conducting experiments, analyzing and interpreting data, and communicating findings orally and in writing. Prereq: Biocore 485 (or Biocore 323 previous to Fall 2014) or concurrent registration
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

BIOCORE 587 Biological Interactions Credits: 3
This capstone course helps students build on and integrate the knowledge and skills they have gained in the previous three semesters of Biocore lab and lecture coursework through readings and analysis of primary scientific literature. The course is organized such that students work in small groups to analyze current and emerging topics through the lens of scientific research. Topics include signaling pathways, systems biology, genetic disease, and cancer. Prereq: Biocore 381, 383, and 485 (or Biocore 301, 303, and 323 previous to Spring 2014); or consent of instructor
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Spring
BIOCORE 699 Directed Study  Credits: 1 - 3
Prereq: Biocore 301 & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

BOTANY

BOTANY 100 Survey of Botany  Credits: 3
Major emphasis on the roles of plants and microbes in past and present global ecology, and the past and present uses of plants and microbes by humans, including emerging applications of biotechnology. Lectures and short lab/discussions.  Prereq: Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

BOTANY 123 Plants, Parasites, and People  Credits: 3
The course will explore the interaction between society and plant-associated microbes. Topics include: the Irish potato famine, pesticides in current agriculture, role of economics and consumer preference in crop disease management and the release of genetically engineered organisms.  Prereq: Open to Fr
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BOTANY 130 General Botany  Credits: 5
Introduction to the basic principles and concepts of the biology of plants. An integrative approach stressing evolutionary sequences and the relationship between structure and function at succeeding levels of organization: molecule, cell, organism, population, community. Correlated lectures, laboratories, and discussions.  Prereq: Open to Fr; not open to stdts who have taken Botany 100 or Botany/Zoology 151-152. HS or coll chem crse recommended
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BOTANY 151 Introductory Biology  Credits: 5
First semester of a two semester course designed for majors in biological sciences. Topics include: cell structure and function, cellular metabolism (enzymes, respiration, photosynthesis), information flow (DNA, RNA, protein), principles of genetics and selected topics in Animal Physiology. HS chem or concurrent registration in college chemistry strongly advised.  Prereq: Not recommended for students with credit already in Zoo/Bio 101, 102 or Botany/Bio 130
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BOTANY 152 Introductory Biology  Credits: 5
Second semester of a two semester course designed for majors in biological sciences. Continuation of 151. Topics include: selected topics in plant physiology, a survey of the five major kingdoms of organisms, speciation and evolutionary theory, and ecology at multiple levels of the biological hierarchy.  Prereq: Biology/Botany/Zoology 151. Not recommended for students with credit already in Zoology/Biology 101,102 or Botany/Biology 130
General Education: COM B  L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BOTANY 240 Plants and Humans  Credits: 3
Plant parts and demonstrations of their utility to humans, origins of domesticated plants, modifications of plants by humans, ecosystem services owed to plants, and reasons to sustain plant diversity.  Prereq: Open to Freshmen
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BOTANY 260 Introductory Ecology  Credits: 3
For nonbiology students: the relationships of organisms and the environment. Population dynamics and community organization, human-environment relationships, action programs.  Prereq: Open to Freshmen. Does not count toward Botany or Zoology major
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
Are you awed by the amazing biodiversity found in rainforests and coral reefs? Want an opportunity to see these ecosystems first hand and decide if a career in tropical biology or international conservation is for you? This course focuses on the ecology of the world's most biodiverse ecosystems, and their global importance. Combining lecture with online discussions and case studies, you'll learn the physical, chemical, and biological processes that make rainforests and coral reefs function, and the history of human dependence upon these ecosystems. This course will help you understand why both of these ecosystems currently are threatened and what actions can and must be taken to protect the

L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

Elementary level directed study/independent research. The purpose of this course to introduce undergraduate students to research questions and, facilitate their learning in the field of botany by providing them with guidance and mentorship in a research environment. Prereq: Instructor consent

L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

Plant structure and development of seed plants, primarily of flowering plants. Emphasis is placed on structure in relation to function and on the plant body as a structural and functional entity; lecture and lab. Prereq: A 5 cr intro crse in botany

L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

A broad survey of the diversity of plants in the context of their evolutionary history. Similarities and differences in structure and reproduction among extant bryophytes, lycophytes, ferns, gymnosperms, and flowering plants are emphasized along with the study of fossils representing extinct plant lineages. Prereq: Introductory course in botany

L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

Introduction to ecology, evolution, systematics, taxonomy, physiology, biochemistry, cell biology, and molecular biology of freshwater, terrestrial and marine algae. Lecture and lab. Lab emphasis on techniques for identification, culture, analysis of growth and reproduction, and community composition assessment. Prereq: 5-cr intro botany crse or cons inst

General Education: COM B  L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit

Typically Offered: Fall

Growth, development, variability and dispersal of saprophytic, parasitic, and symbiotic fungi, with a consideration of their ecological and economic significance. Prereq: A 5 cr intro crse in botany

L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

This course will explore how physical and biological factors affect the distribution of terrestrial biomes, ecosystem types, and biodiversity; as well as the role of disturbance and recent human activities on differences in past and modern day species distributions. Prereq: Geog 120, 127 or consent of instructor

L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

Theoretical and practical training in plant biotechnology including molecular biology, protein biochemistry and basic bioinformatic techniques used in fundamental and applied research on plants. Valuable hands-on training to those interested in careers in biotechnology. Prereq: Bot/Zoo 152 or equiv & Chem 104 or equiv

L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

Theoretical and practical training in plant cell and tissue culture, and plant genetic engineering. Includes overview of current techniques, biosafety and regulatory requirements, and experimental design and analysis used in fundamental and applied research on plants. Valuable hands-on training to those interested in careers in biotechnology. Prereq: Botany 130 or Botany/Zoology/Biology 152 or Zoology 102, and Chemistry 104, 109, or 116

L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
BOTANY 370 Grassland Ecology Credits: 3
Understand factors driving global, continental, regional, and local distribution of grasslands. Discuss how management affects provision of grassland ecosystem goods and services. Compare and contrast plant community and ecosystem dynamics in native prairie and intensively managed pastures. Prereq: Intro crse in Agronomy, Botany, or Soil Sci; or Bot/Zoo/Biol 151-152; or Biocore 301 or 333
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

BOTANY 400 Plant Systematics Credits: 4
Plant systematics; the integration of taxonomy (identification, nomenclature, classification emphasizing flowering plants), evolution (speciation, reproductive biology, adaptation, convergence, biogeography), and phylogenetics (phenetics, cladistics, morphology and molecules). Lab emphasis on representative families and genera of flowering plants in Wisconsin, use of keys and manuals, plant collection. Recommended for botany majors; lecture and lab. Prereq: A 5 cr intro crse in botany
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

BOTANY 401 Vascular Flora of Wisconsin Credits: 4
Taxonomic survey of the vascular plants of Wisconsin, with emphasis on the angio-sperms. Lecture, lab and field work. Prereq: A 5 cr intro college crse in bot or equiv
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

BOTANY 402 Dendrology Credits: 2
Identification, ranges, uses, and some ecological characteristics of evergreen and deciduous woody plants, both native and cultivated; lab and field work. Prereq: A 5 cr intro college crse in bot or equiv
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

BOTANY 403 Field Collections and Identification Credits: 1 - 4
Students consult the instructor in the spring or summer for equipment and directions for making a plant collection in summer or fall. Prereq: Bot 400 or 401. Open only to students who have made collections during the summer or will be making collections in early fall
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

BOTANY 410 Evolutionary Biology Credits: 3
Evolutionary biology, emphasizing how modern scientists study evolution. Topics include: nature and mechanisms of microevolution, macroevolution, adaptation, speciation; systematics and taxonomy; quantitative genetics and measurement of natural selection; phylogenetic analyses of behavior, physiology, morphology, biochemistry; current controversies in evolution. Prereq: An elem course in zool or botany & So st; Genetics/Botany/Zool 160 or 466 recommended
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

BOTANY 422 Plant Geography Credits: 3
Biogeography of plants. Relationship to climate and geology; paleobiogeography, vicariance and island biogeography; history and distribution of floras of North America and Wisconsin; lecture and demo lab; open to advanced students in the natural sciences. Prereq: A crse in plant taxonomy is highly recommended
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

BOTANY 450 Midwestern Ecological Issues: A Case Study Approach Credits: 2
This web course explores how ecological principles can be used to address contemporary environmental issues such as water quality, invasive species, and population growth. Emphasis on midwestern issues, practical approaches, the role of history, and geographic context. Prereq: Intro biology crse, interest in solving problems
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

BOTANY 455 The Vegetation of Wisconsin Credits: 4
Ecology of Wisconsin plant communities: floristic composition, community structure; relationship to history, climate, soil, and geology; response to human perturbation. Lecture and lab. Prereq: Botany 100, or Botany 130, or Botany/Zool 151-152, or Biocore 313
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
BOTANY 459 Ecological Techniques for Field Monitoring Credits: 1 - 2
Field techniques to inventory and census plant and animal species and ecological processes and how to assemble these into useful databases. Emphasis on ‘keystone’ and invading exotic species that strongly affect community dynamics. Aimed at science teachers interested in participating in a monitoring network. Prereq: A crse in ecology (e.g. Botany 450, 460), interest in monitoring, & cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

BOTANY 460 General Ecology Credits: 4
Ecology of individual organisms, populations, communities, ecosystems, landscapes, and the biosphere. The interaction of organisms with each other and their physical environment. These relationships are studied, often in quantitative terms, in both field and laboratory settings; lecture and lab. Prereq: Intro course in botany & zoology, or Bot/Zoo 151-152, or Biocore 301 or 333; for biol sci majors only
General Education: QR-B  L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

BOTANY 468 Patterns in Biological Design: An Introduction to Systems Biology Credits: 3
Holistic systems and biological design. Intuitive verbal models not mathematical techniques. Topics: scale problems; architecture of biological form; models for control, growth, and transport; general systems philosophy, theory of models, levels of organization, continuous versus catastrophic change; biological paradigms. Prereq: So st; computer experience recommended. Any intro botany crse; Math 101
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 473 Plant-Insect Interactions Credits: 3
Multiple ways in which arthropods exploit plants, plant traits that deter or augment insects, environmental mediation of these interactions, effects on population dynamics, community ecology and co-evolution, and implications to natural resource management, environmental quality, and sustainable development. Prereq: One of the following: Bot/For/Zoo 460, Ent/Pl Path/For 500, Pl Path/Bot 505, Forestry 550, or Entom 342
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 474 Ethnobotany Credits: 3 - 4
Study of the interactions between human cultures and plants. Topics include: traditional resource management and agriculture; crop domestication, evolution, and conservation; archaeobotany; indigenous knowledge; folk taxonomy; plants in symbolism and religion; dietary patterns; phytochemistry; global movement of plants and peoples. Prereq: A five credit course in botany or biology (e.g., Botany 130, Biology 151) or cons inst
Ethnic Studies: Yes  L&S Breadth: Biological or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BOTANY 500 Plant Physiology Credits: 3 - 4
An in-depth look at plant growth, development, respiration, photosynthesis, mineral nutrition, and water relations. For junior, senior and graduate students; not for those who have taken Biocore. In the laboratory, experimental approaches will be used to demonstrate principles described in lecture. 3-credit option (lecture only) available with consent of instructor. Prereq: Intro botany or biology sequence required; organic chem recomm. Undergrads must enroll for 4 cr (lec & lab); Grads may enroll for 3 cr (lec only) or 4 cr
General Education: QR-B  L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 505 Plant-Microbe Interactions: Molecular and Ecological Aspects Credits: 3
Molecular and ecological aspects of the interactions between plants and microorganisms. This course explores many of the themes, from genetic to integrative, of modern biology, and illustrates how study of plant-microbe interactions contributes to understanding of fundamental plant science. Prereq: An upper level crse in microbiol (e.g. Bact 303); biochem (e.g. Biochem 501); & genetics (e.g. Genetics 466) or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 555 Plant Functional Genomics and Bioinformatics Credits: 2 - 3
A survey of the underlying technologies of genomic research with a special emphasis on their applications in plant science. Provides students with a deeper understanding of the many public resources and databases being generated by large-scale genomics projects. Prereq: Grad st; undergrads with Genetics 466 or equiv or cons inst
Typically Offered: Spring
BOTANY 561 Introductory Cytogenetics Credits: 2 - 3
Mitosis, meiosis, variations in chromosome structure and number, cytological aspects of hybridity and apomixis; chromosomes as they affect breeding behavior. Prereq: Genetics, Botany, Zoology 466 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 563 Phylogenetic Analysis of Molecular Data Credits: 3
A course in the theory and practice of phylogenetic inference from DNA sequence data. Prereq: A crse in genetics/evolution/systematics & a crse in stats/probability, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 575 Special Topics Credits: 1 - 3
Topics of interest to undergraduates, taught as the need arises. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

BOTANY 621 Plant Biochemistry Credits: 3
Biochemistry of photosynthesis, respiration, cell walls, and other metabolic and biosynthetic processes in plants. Prereq: Biochem Biochem 501 or 507
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

BOTANY 626 Mineral Nutrition of Plants Credits: 3
Essential and beneficial elements, solutions and soil as nutrient sources, rhizosphere chemistry, nutritional physiology, ion uptake and translocation, functions of elements, nutrient interactions, genetics of plant nutrition. Prereq: Botany 350 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BOTANY 629 Evolutionary Genetics Credits: 3
Basic principles of phylogenetics, population genetics and quantitative genetics including the construction of gene trees, forces affecting the amount and distribution of genetic variation in populations, and the inheritance and evolution of multifactorial characters. Prereq: Genetics 466 or Biocore 301 & 302 or equiv. Knowledge of intro calc & stats or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BOTANY 645 Modeling in Population Genetics and Evolution Credits: 3
Introduction to mathematical techniques and approaches for predicting evolutionary change within populations. Concentrates on classic population genetic models and results, including selection on one and several loci; mutation; non-random mating; drift. Evaluation based on periodic problem sets and independent projects. Prereq: Intro evolution, intro genetics, calculus, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BOTANY 651 Conservation Biology Credits: 3
Application of ecological principles and human dimensions to the conservation of biological diversity. Topics: biodiversity science; conservation planning; population ecology; habitat loss, species exploitation, invasive species, pollution; human attitudes and activities as they affect the biosphere; approaches to monitoring interventions. Prereq: An ecology crse (eg, Botany/Zoology 460)
General Education: QR-B  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BOTANY 655 Biology and Genetics of Filamentous Fungi Credits: 3 - 4
Fungal genetics, genomics, and physiology using plant pathogenic fungi and the genetic models Aspergillus nidulans and Neurospora crassa as model systems to explore the current knowledge of fungal genetics and plant/fungal interactions. Prereq: Cons inst; Pl Path 300 & 332 recommended; Genetics 466 or equiv; general microbiol crse
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

BOTANY 670 Adaptive Restoration Lab Credits: 2
Field experience in restoration as an adaptive process involving field experimentation; baseline data collection on restoration sites; design of experiments to advance restoration science; quantitative evaluation of restoration outcomes. Analysis and interpretation of data; development of a team report. Prereq: a crse in ecology & a crse in stats, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
Historical Ecology is an area of ecology that considers the importance of past events for current ecosystems. Concepts and applications are emphasized. Multidisciplinary emphasis, for seniors and graduate students in biological sciences, social studies, and humanities. Discussion format. Prereq: Graduate or senior standing and consent of instructor

**BOTANY 672 Historical Ecology** Credits: 2

L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**BOTANY 681 Senior Honors Thesis** Credits: 3

Prereq: Cons inst

L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**BOTANY 682 Senior Honors Thesis** Credits: 3

Prereq: Cons inst

L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**BOTANY 691 Senior Thesis** Credits: 2 - 3

Introduction to botanical research; if possible, plans for the thesis program should be made by the close of the junior year.

L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**BOTANY 692 Senior Thesis** Credits: 2 - 3

Continuation of 691.

L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**BOTANY 698 Directed Study** Credits: 1 - 4

Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst

L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**BOTANY 699 Directed Study** Credits: 1 - 4

Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst

L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**BOTANY 725 Ecosystem Concepts** Credits: 3

Scope and objectives of ecosystem ecology; roles of theory, long-term studies, comparative studies, and large-scale experiments; scaling problems; ecosystem services and ecological economics; adaptive ecosystem assessment and management. Prereq: Grad st. Experience in modeling, programming, or stats

Typically Offered: Occasionally

**BOTANY 801 Advanced Plant Community Ecology** Credits: 4

Ecological determinants of plant community structure, dynamics, and diversity from an evolutionary perspective. Relations of vegetation types, physiognomy and phenology to plant adaptation and constraints. Gradient analysis, successsion, nutrient cycling, plant-herbivore interactions, species richness. (Includes field trip to Great Smoky Mountains.) Prereq: Bot 455, 460, or Biocore 333, and intro calculus

Typically Offered: Occasionally

**BOTANY 802 Physiological Plant Ecology** Credits: 3

Gas exchange at the individual plant and community level, energy balance and water relations, nutrient cycling, biomechanical adaptations; growth analysis; adaptations to sun and shade, primary productivity models, physiological ecology of selected plant communities (arctic/alpine, boreal, chaparral, desert, tropical, aquatic). Lecture and lab. Prereq: A crse in ecology or cons inst

Typically Offered: Occasionally

**BOTANY 820 Foundations of Evolution** Credits: 2

Through reading and analysis of the primary literature, this course will explore some of the most important themes and debates that have permeated evolutionary biology over the last 50 years. Students will read key papers related to each controversial topic, will debate the pros and cons of competing viewpoints, and will reflect on the relevance of the issues to contemporary evolutionary biology. Students will also write a paper that analyzes one topic in more detail. This course is intended for graduate students who plan to specialize in evolutionary biology, broadly construed. Prereq: Graduate or professional standing

Typically Offered: Fall
BOTANY 840 Regulatory Mechanisms in Plant Development Credits: 3
Molecular mechanisms whereby endogenous and environmental regulatory factors control development; emphasis on stimulus perception and primary events in the signal chain leading to modulated gene expression and cellular development; lecture. Prereq: Biochem 501 or 601 & Botany 500 or Biocore 301 & 323
Typically Offered: Occasionally

BOTANY 858 Special Topics in Plant Physiology Credits: 1 - 3
Subjects vary. Lecture. Prereq: Cons inst
Typically Offered: Occasionally

BOTANY 860 Plant Cell Biology Credits: 2
Structure/function relationships at the cellular level. Topics include the biogenesis of organelles, vesicle traffic, ion transport and signalling processes, and organization of the cytoskeleton and cell wall. Prereq: Botany 500 or Biochem 501 or 601
Typically Offered: Occasionally

BOTANY 879 Advanced Landscape Ecology Credits: 3
Landscape ecology emphasizes spatial patterning--its development and importance for ecological processes--and often focuses on large regions. Concepts, methods, and applications of landscape ecology will be learned through lectures, readings, exercises in quantitative approaches, and an independent project. Prereq: Grad st & cons inst
Typically Offered: Occasionally

BOTANY 911 Limnology and Marine Science Seminar Credits: 1
Sections in various fields of zoological research. Prereq: Grad st in limnology & marine sci grad prgm or cons inst
Typically Offered: Occasionally

BOTANY 920 Seminar in Algology: Fresh Water Algae Credits: 1
Prereq: Graduate or professional standing
Typically Offered: Occasionally

BOTANY 930 Seminar-Mycology Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 940 Seminar in Plant Systematics and Evolution Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 941 Plant Taxonomy Journal Review Credits: 1
Prereq: Graduate or professional standing
Typically Offered: Occasionally

BOTANY 950 Seminar-Plant Ecology Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 951 Plant Ecology Journal Review Credits: 1
Prereq: Grad st in plant ecol or cons inst
Typically Offered: Occasionally

BOTANY 953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

BOTANY 960 Seminar-Plant Physiology Credits: 1
Prereq: Grad st
Typically Offered: Occasionally
BOTANY 965 Seminars in Developmental Biology Credits: 1
Sections in various fields of zoological research. Prereq: Grad st
Typically Offered: Occasionally

BOTANY 980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface systems, involving physical geochemical and biological processes, and including interactions with human systems. Prereq: Grad st
Typically Offered: Occasionally

BOTANY 990 Research-Phycology Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 993 Research-Mycology Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 994 Research-Plant Systematics Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 995 Research-Plant Ecology Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 996 Research-Plant Physiology Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

BOTANY 999 Independent Work Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

CHEMISTRY

CHEM 101 General Chemistry I Laboratory Credits: 1
Chemistry 101 is the laboratory only part of "Chemistry 103: General Chemistry I". Chem 101 is intended only for students who have earned college credit prior to entering UW-Madison for a course that is equivalent to the lecture part of Chemistry 103, but not the laboratory part. Students need this lab experience or its equivalent before proceeding to Chemistry 104: General Chemistry II, the second semester of the General Chemistry sequence. Prereq: Department Consent
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 102 General Chemistry II Laboratory Credits: 1
Chemistry 102 is the laboratory only part of Chemistry 104: General Chemistry II. Chem 102 is intended for students who have earned college credit prior to entering UW-Madison for a course that is equivalent to the lecture part of Chemistry 104, but not the laboratory part. Students need this lab experience or its equivalent to proceed to any intermediate level chemistry courses such as Organic Chemistry (341 or 343), Analytical Chemistry (327 or 329), and Inorganic Chemistry (311). Prereq: Consent from Chemistry department
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
CHEM 103 General Chemistry I Credits: 4
Introduction. Stoichiometry and the mole concept, the behavior of gases, liquids and solids, thermochemistry, electronic structure of atoms and chemical bonding, descriptive chemistry of selected elements and compounds, intermolecular forces. For students taking one year or more of college chemistry; serves as a prereq for Chem 104; lecture, lab and discussion. Prereq: Suitable algebra placement score or completion of Math 112, Math 114, Math 171 or equivalent. 1 yr HS chem recommended. Open to first year students. Enrollment not permitted for students who have completed Chem 109 or Chem 115
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

CHEM 104 General Chemistry II Credits: 5
Principles and application of chemical equilibrium, coordination chemistry, oxidation-reduction and electrochemistry, kinetics, nuclear chemistry, introduction to organic chemistry. Lecture, lab, and discussion. Prereq: CHEM 103; MATH 112, 114, or 171 or placement into MATH 211 or 221. Not open to students who have completed CHEM 109 or 115
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

CHEM 105 General Chemistry I Credits: 3
Stoichiometry and the mole concept, chemical reactions, thermochemistry, electronic structure of atoms, periodic properties, chemical bonding, intermolecular forces, and the behavior of gases, liquids and solids. First semester of a two-semester sequence for students taking one year or more of college chemistry; includes lecture and discussion. CHEM 105 is not open for general enrollment. The course provides a mechanism for awarding credit for experiences with no laboratory component, such as credit by examination. The combination of CHEM 101 and CHEM 105 is equivalent to CHEM 103. Prereq: MATH 112, 114, or 171 or placement into MATH 211 or 221. Not open to students with credit for CHEM 10
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

CHEM 106 General Chemistry II Credits: 4
Principles and applications of chemical equilibrium, electrochemistry, thermodynamics, kinetics, organic chemistry and other topics that may include nuclear chemistry, biological chemistry and coordination chemistry. Second semester of a two-semester sequence for students taking one year or more of college chemistry; includes lecture and discussion. CHEM 106 is not open for general enrollment. The course provides a mechanism for awarding credit for experiences with no laboratory component, such as credit by examination. The combination of CHEM 102 and CHEM 106 is equivalent to CHEM 104. Prereq: CHEM 103 or (CHEM 101 and CHEM 105) and (MATH 112, 114, or 171 or placement into MATH 211 or 221
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

CHEM 108 Chemistry in Our World Credits: 5
Chemistry 108 is a one-semester introductory course that includes selected topics in inorganic and organic chemistry. Emphasis is on relevance to biological, environmental and social issues. Chemistry 108 is not intended for students who expect to take additional chemistry courses and it does not satisfy any prerequisites for further chemistry courses. Prereq: Appropriate for students needing only one semester of chemistry. No HS chemistry required. 1 year HS chemistry is permitted. Open to first year students. Enrollment not permitted for students who have completed Chem 104, 109 or 115
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

CHEM 109 Advanced General Chemistry Credits: 5
A modern introduction to chemical principles that draws on current research themes. For students with good chemistry and mathematics background preparation who desire a one-semester coverage of general chemistry. Recommended for students intending majors in chemistry or allied fields. Lecture, lab, and discussion. Prereq: At least 1 year HS chemistry; placement into Math 221 or higher or equivalent math proficiency. Open to first year students. Enrollment not permitted for those who have completed Chem 104 or 115
General Education: QR-B L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

CHEM 115 Chemical Principles I Credits: 5
For specially well qualified students majoring in chemistry or chemical engineering. Lecture, lab, and quiz. Prereq: Adv placement or adv HS chem, cr or con reg in Math 221 or cons inst. Open to Fr
General Education: QR-B L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall
CHEM 116 Chemical Principles II Credits: 5
Continuation of Chemistry 115. Chemistry 115 and 116 satisfy the requirements for general chemistry and introductory analytical chemistry; lecture, lab, and discussion. Prereq: Chem 115 or cons inst. Open to Fr
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 155 Study Abroad in Introductory Chemistry Credits: 1 - 6
Provides equivalency for study abroad courses in introductory chemistry that do not equate to existing UW-Madison chemistry courses. Prereq: None
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 260 Entering Research I Credits: 1
Seminar course designed primarily for sophomores or transfer students to begin independent research in chemistry. Taken concurrently with 1-3 research credits with faculty member. Supports independent research experience. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 261 Entering Research II Credits: 1
Seminar course for primarily sophomores or transfer students continuing independent research in chemistry. Taken concurrently with 1-3 research credits with faculty member. Supports independent research experience. Prereq: Must have taken Chem 260, or completed at least one semester of research with a faculty member.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 299 Directed Study Credits: 1 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 311 Chemistry Across the Periodic Table Credits: 4
Explores the properties, reactions and uses of elements and compounds, with emphasis on coordination chemistry of transition-metal ions, bioinorganic chemistry, solid-state structure and main-group elements. The weekly three-hour laboratory introduces students to the synthesis and characterization of inorganic compounds. Prereq: Chem 109 or 104. Open to Freshmen
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 327 Fundamentals of Analytical Science Credits: 4
Fundamentals of chemical measurement in chemistry, biology, engineering, geology, and the medical sciences. Topics include equilibria of complex systems, spectroscopy, electrochemistry, separations, and quantitative laboratory technique. Lecture, lab, and discussion. Prereq: Chem 104, or 109 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 329 Fundamentals of Analytical Science Credits: 4
Fundamentals of chemical measurement in chemistry, biology, engineering, geology, and the medical sciences. Topics include equilibria of complex systems, spectroscopy, electrochemistry, separations, and quantitative laboratory technique. For chemistry majors, chemical engineering majors, and related majors. Lecture, lab, and discussion. Prereq: Chem 104, 109 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 341 Elementary Organic Chemistry Credits: 3
Chemistry 341 is a single semester, terminal course covering selected topics in organic chemistry. Chemistry 341 is not equivalent to either Chemistry 343 or 345 and it does not satisfy the prerequisite for enrollment in Chemistry 345. Prereq: Chem 104, 109 or 116. For students who expect to take only one semester of organic chemistry. Enrollment not permitted for students who have completed Chem 343 or 345
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 342 Elementary Organic Chemistry Laboratory Credits: 1
Chemistry 342 introduces organic laboratory techniques in synthesis, purification and spectral interpretation. The course is designed to accompany Chemistry 341 and topics closely follow Chemistry 341. Prereq: Completion of or concurrent enrollment in Chem 341. For students who expect to take only one semester of organic chemistry and need only a single laboratory credit. Enrollment not permitted for students who have completed Chem 344
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
CHEM 343 Introductory Organic Chemistry  Credits: 3
Chemistry 343 covers fundamental aspects of organic molecular structure, including stereochemistry, and introduces basic themes in organic reactivity. It is the first semester of a two-semester organic chemistry sequence. Chemistry 345 is the second course in the sequence. Class is for students expecting to take two semesters of organic chemistry. Prereq: CHEM 104, 109 or 116
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 344 Introductory Organic Chemistry Laboratory  Credits: 2
Chemistry 344 introduces the basic synthesis, purification, and characterization techniques of organic chemistry, along with critical interpretation of experimental data. The laboratory includes material from both Chemistry 343 and 345. Prereq: Completion of or concurrent enrollment in CHEM 345. May not repeat CHEM 344 if previously earned credit for CHEM 344
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 345 Intermediate Organic Chemistry  Credits: 3
Chemistry 345 is the second course of a two-semester sequence in organic chemistry. It covers diverse themes in organic reactivity, building on a foundation provided in Chemistry 343. Chemistry 341 does not satisfy the prerequisite for 345. Prereq: Grade of C or better in CHEM 343
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 346 Intermediate Organic Chemistry Laboratory  Credits: 1 - 2
Multi-step synthetic processes. Advanced experimental techniques such as high-vacuum distillation. Independent research projects. Prereq: Chem 344 & 345 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 350 Communicating Chemistry to the Public Via Demonstrations  Credits: 2
Through this course, students will gain experience in the safe and proper presentation of chemical demonstrations. They will join an experienced staff who enjoy doing demonstrations and who continue to develop the art of presenting them; students will learn from each other as well as staff and faculty from science departments, music, theater and other performing artists who combine their art with scientific experiments to share the joy and excitement of both artistic and scientific creativity. Public presentations will be offered both on and off campus to a wide variety of audiences (students, teachers, parents and the community at large) in a variety of settings (school settings and public)
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 353 Chemistry for High School Teachers  Credits: 2 - 4
An intensive course for teachers of high school chemistry to strengthen their fundamental knowledge of chemistry. Lectures, laboratory, discussion. Prereq: Cons inst. Enrollment limited to participants in workshops sponsored by the Institute for Chemical Educ
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

CHEM 355 Study Abroad in Intermediate Chemistry  Credits: 1 - 6
Provides equivalency for study abroad courses in intermediate chemistry that do not equate to existing UW-Madison chemistry courses. Prereq: None
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 375 Intermediate Topics in Chemistry  Credits: 1 - 4
Various topics in chemistry at the intermediate level; intended for undergraduates. Offerings will require that students have completed a college level general chemistry course as a minimum. Additional requirements may apply depending on the topic. Prereq: Consent of instructor
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 421 Polymeric Materials  Credits: 3
Polymer chemistry and physics terminologies, structure-property relationship, polymer characterization, polymer synthesis, material requirements for optoelectronics including conjugated polymers, thin film transistors, light emitting diodes, non-linear optical materials, holographic data storage and liquid crystal polymers. Prereq: Chem 341 or equiv
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
CHEM 425 Undergraduate Rheology Seminar Credits: 0 - 1
Rheology seminar course encouraged for all interested in professions related to polymers, suspensions or rheology; will not count toward credit requirement of the major. Prereq: Cons inst or Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 505 Aspects of Industrial Chemistry and Business Fundamentals Credits: 3
The objective of this course is to educate students in the chemistry and chemical engineering that defines societies’ standard of living. Commercial chemical processes will be reviewed. Practical realities of how a discovery moves from research to commercial product will be taught through examples and case studies. Financial concepts that guide investment will be reviewed. Prereq: Junior standing and Chem 345
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

CHEM 509 Senior Seminar Credits: 2
Senior Seminar provides an integrative experience that requires students to synthesize the knowledge and skills that have been introduced across the Chemistry curriculum. Through a series of seminars by faculty and advanced graduate students, specific research challenges will be identified. Groups of students will be formed and assigned the task of using the chemical literature to identify routes to the solutions of these problems, presenting their findings both in class presentations and written assignments. Prereq: Chem 561 or Chem 565; completion of or concurrent enrollment in Chem 563
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 511 Advanced Inorganic Chemistry Credits: 3
Emphasizes the symmetry, structure and bonding of inorganic compounds. Selected topics may include applications in transition metal chemistry, organometallic chemistry, industrial catalysis, advanced bioinorganic chemistry, solid-state chemistry or main group chemistry. Students majoring or intending to major in chemistry should take Chem 311 prior to taking Chem 511. Prereq: Junior standing; Chem 345 or concurrent enrollment
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 524 Chemical Instrumentation Credits: 3
Instrumental methods of measurements, as applied to modern chemical analysis; lecture and lab. Prereq: Chem 343, Chem 327 or Chem 329, Physics 208 or equivalent; or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 547 Advanced Organic Chemistry Credits: 3
A third semester of descriptive organic chemistry. Prereq: Chem 345
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 555 Study Abroad in Advanced Chemistry Credits: 1 - 6
Provides equivalency for study abroad courses in advanced chemistry that do not equate to existing UW-Madison chemistry courses. Prereq: None
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 561 Physical Chemistry Credits: 3
Macroscopic theory: equilibrium thermodynamics, chemical kinetics and transport properties. Prereq: Chem 327 or 329; Math 222; Physics 201 or 207. Not for credit for those who have taken Chem 565
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 562 Physical Chemistry Credits: 3
Molecular theory: quantum chemistry, molecular structure and spectra, statistical mechanics, selected topics in the molecular theory of matter in bulk. Prereq: Chem 561 or 565 or ChE 211; Physics 202 or 208
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 563 Physical Chemistry Laboratory Credits: 1 - 2
Principles of experimental physical chemistry applied to the acquisition of thermodynamic and kinetic data; use of basic physical laboratory equipment; related computations, analysis of errors, interpretation of results. Prereq: Chem 561 or 565 or Ch E 211
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
CHEM 564 Physical Chemistry Laboratory Credits: 1
Principles of experimental physical chemistry applied to the acquisition and interpretation of basic data on molecular structure and dynamics, and properties of macromolecules; principles and use of spectroscopic and other electronic instrumentation. Prereq: Chem 562 and 563. Not for cr for those who have taken 567
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 565 Biophysical Chemistry Credits: 4
Equilibrium thermodynamics, chemical kinetics, and transport properties, with emphasis on solution behavior and applications to biological macromolecules in solution. For students interested primarily in the biological applications of physical chemistry. Prereq: Chem 327 or 329; Math 222; Physics 201 or 207; Biocore 303, or Biochem 501 or concurrent registration, or consent of instructor. Not for credit for those who have taken Chem 561
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 567 Physical Chemistry Laboratory Credits: 2
Principles of experimental physical chemistry applied to the acquisition of thermodynamic and kinetic data; acquisition and interpretation of basic data on molecular structure and dynamics, and properties of macromolecules; principles and use of spectroscopic and other electronic instrumentation use of basic physical laboratory equipment; related computations, analysis of errors, interpretation of results. Prereq: Cr or con reg in Chem 562. Not for cr for those who have taken Chem 563 or 564
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

CHEM 575 Advanced Topics in Chemistry Credits: 1 - 4
Various topics in chemistry intended for advanced undergraduates. Students enrolling in this course will be required to have completed at least a college level general chemistry course and some 300 level chemistry course work. Additional requirements may apply depending on the topic. Prereq: Consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 605 Spectrochemical Measurements Credits: 3
Mass spectrometry and applied nuclear magnetic resonance. Two lecture sessions, or lectures, and one problem session per week. Prereq: Chem 562 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 606 Physical Methods for Structure Determination Credits: 1 - 3
A survey of spectroscopic methods for inorganic structure determination. This course will introduce the major non-crystallographic techniques with an emphasis on the application to structural analysis. The basic theory and methodology of each form of spectroscopy will be presented. Topics covered include: ligand field theory, electronic absorption, IR/Raman, Mossbauer and EPR spectroscopies, and magnetic susceptibility. Prereq: Chem 511 & 562 or cons inst. Chem 608 or equiv recommended
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 607 Laboratory Safety Credits: 1
Aspects of laboratory safety relating to chemical, electrical, optical, mechanical, cryogenic and radiological hazards will be discussed. Safety equipment, techniques (including first aid), and facilities will be introduced. Prereq: Chem 346 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 608 Symmetry, Bonding, and Molecular Shapes Credits: 1 - 3
This course provides a solid background in elementary bonding theory and its application to understanding molecular geometry and reactivity. The course emphasizes qualitative methods applied to the bonding of elements from throughout the periodic table. Prereq: Grad st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 613 Chemical Crystallography Credits: 3
Theory of structural chemistry, experimental methods involved, applications to problems of chemical interest; use of diffractometric equipment and computer data analysis for an actual structure determination. Prereq: Chem 562 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
CHEM 619 Microscopy of Life Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 621 Instrumental Analysis Credits: 3 - 4
Chemical instrumentation, spectrochemical, electrochemical and other methods of instrumental analysis; lecture and lab. Prereq: Cr or con reg in Chem 561 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 622 Organic Analysis Credits: 2
Biological Mass Spectrometry: Fundamentals and Applications. Prereq: Chem 345 & 524 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

CHEM 623 Experimental Spectroscopy Credits: 2 - 3
The theory behind current spectroscopic methods employed in chemical analysis with applications in atomic and molecular absorption spectroscopy, infrared and Raman vibrational spectroscopy, florescence and light scattering; lecture and laboratory projects. Prereq: Chem 562 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

CHEM 624 Electrochemistry Credits: 2 - 3
Theory of interfacial electron transfer and mass transport processes in electrochemistry, with applications to electroanalysis, electrodeposition and electrochemical separations; lecture and laboratory projects. Prereq: Graduate standing or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 625 Separations in Chemical Analysis Credits: 2 - 3
Fundamentals of transport processes and the origins of chemical potential differences giving rise to separation. Principles of chromatography, electrophoresis and field flow fractionation. Lecture and laboratory projects. Prereq: 1 sem organic & 1 sem phys chem, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

CHEM 626 Genomic Science Credits: 2
This course is designed to bring cutting-edge topics in the genomic sciences into the reach of traditionally "pure" chemistry, biology, engineering, computer science & statistics students. It is also designed for enabling biologically-oriented students to deal with the advances in analytical science so that they may incorporate new genomic science concepts into their own scientific repertoires. Intended for graduate students and for undergraduates with extensive research experience. Prereq: Graduate student standing
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 627 Methods and Technologies for Protein Characterization Credits: 2 - 3
This course seeks to engage students interested in chemical instrumentation and those who desire to apply proteomic technologies to current biological problems. Understanding the current proteomics landscape, the limitations of these technologies, and their practical applications are among the course learning objectives. Prereq: Graduate student standing.
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CHEM 628 Chemical Instrumentation: Design and Control Applications Credits: 3
The design and application of chemical instrumentation; basic principles for monitoring and controlling chemical experiments; optical, electrical and mechanical sensors and transducers of importance to analytical chemical instrumentation; lecture and lab. Prereq: Chem 524, 621 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

CHEM 630 Selected Topics in Analytical Chemistry Credits: 1 - 3
Lectures of a specialized nature in advanced analytical chemistry. Prereq: Chem 524, 621 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
**CHEM 635 Topics in Computational Chemistry** Credits: 1
This course is designed to give students a basic understanding of computational chemistry, which can be implemented within students' research. In addition, this course will discuss new techniques and developments in the literature, and specific types of calculations that are relevant to current students' research and needs. 
Prereq: Graduate standing or consent of instructor
L&S Breadth: Physical Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**CHEM 636 Topics in Chemical Instrumentation: Introduction to NMR** Credits: 2
This course will instruct students on the theory and practice of NMR spectroscopy. It is a full semester course, consisting of 15 hours of lecture and 30 hours laboratory instruction. Prereq: Cons inst. Enrollment will be limited based on avail instrumentation for lab exercises
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

**CHEM 637 Topics in Chemical Instrumentation: Advanced Methods in NMR** Credits: 1 - 2
This course will instruct students on advanced methods of NMR spectroscopy. It is offered as a seven week module, consisting of 7 hours of lecture, 14 hours of laboratory instruction, 1 hour final exam. Prereq: Cons inst. Enrollment will be limited based on avail instrumentation for lab exercises
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

**CHEM 638 Topics in Chemical Instrumentation: Introduction to Mass Spectrometry** Credits: 1
This course will introduce students to the theory and practice of mass spectrometry. It is offered as a 7 week module, consisting of 15 hours of lecture and laboratory instruction. Prereq: Cons inst. Enrollment will be limited based on avail instrumentation for lab exercises
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

**CHEM 641 Advanced Organic Chemistry** Credits: 3
Topics in physical organic chemistry. Prereq: Chem 345 or cons inst
L&S Breadth: Physical Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

**CHEM 650 Biological Optical Microscopy** Credits: 3
This course for graduate students will cover several aspects of state of the art biological and biophysical imaging. We will begin with an overview of geometrical optics and optical and fluorescence microscopy, with an emphasis on instrumentation. The bulk of the course will focus on advanced imaging techniques including nonlinear optical processes (multi-photon excitation, second harmonic generation, and stimulated Raman processes) and emerging super-resolution methods. Special emphasis will be given to current imaging literature and experimental design. Prereq: Senior or Graduate standing, and CHEM 104 or 109 or 116 and, PHYSICS 104 or 202 or 208
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Every Other Spring

**CHEM 652 Chemistry of Inorganic Materials** Credits: 3
Graduate level course on the materials chemistry of inorganic solids. Focuses on the application of chemical concepts to an understanding of properties of solids and how these properties are manifested in practical applications. Prereq: Graduate student standing or Chem 562 or equivalent
L&S Breadth: Physical Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

**CHEM 653 Chemistry of Nanoscale Materials** Credits: 3
Introduction to solid state materials chemistry, with an emphasis on contemporary topics in the chemistry of nanomaterials. Incorporates fundamental knowledge of solid-state chemistry and traditional materials chemistry with current nanoscale and nanostructural materials research. Prereq: Graduate student standing or both Chem 311 and Chem 561 or equivalent
L&S Breadth: Physical Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

**CHEM 654 Materials Chemistry of Polymers** Credits: 2 - 3
Polymer classification, synthesis, and molecular architecture; solid state structure and characterization; glassy state and glass transition; polymer rheology in solids and gels; transport, dielectric and optical properties. 
Prereq: Chem 562 or cons inst
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**CHEM 661 Chemical and Statistical Thermodynamics** Credits: 3
Basic chemical thermodynamics with applications to chemical and phase equilibria and the study of solutions; introduction to statistical mechanics and calculation of thermodynamic quantities from molecular models; stability and fluctuations. Prereq: Chem 561 or 565, & Chem 562; or consent of instructor
L&S Breadth: Physical Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall
CHEM 664 Physical Chemistry of Macromolecules Credits: 2 - 3
Structure, thermodynamics, and dynamics of polymers in solution and in the bulk; theoretical models and experimental methods; polymer characterization. Prereq: Chem 562 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

CHEM 665 Biophysical Chemistry Credits: 4
Equilibrium thermodynamics, chemical kinetics and transport properties, with emphasis on solution behavior and application to noncovalent interactions of biological macromolecules in solution. For graduate students interested in the biological applications of physical chemistry. Prereq: Grad st or cons inst. Stds must meet prereqs for Chem 565 & have some prev background in phys chem
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 668 Biophysical Spectroscopy Credits: 2 - 3
Focuses on the underlying principles and applications of spectroscopic and microscopy methods employed to solve biological problems at the atomic and molecular level. Techniques covered in this class include electronic absorption and fluorescence spectroscopy, circular dichroism, light scattering, fluorescence microscopy, multidimensional nuclear magnetic resonance and electron spin resonance. Prereq: Chem 561 or equivalent. Chem 562 or equivalent recommended
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 675 Introductory Quantum Chemistry Credits: 3
Basic principles of quantum chemistry, exactly solvable problems, angular momentum, approximation methods, applications to electronic structure. Prereq: Chem 562 or consent of instructor
L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHEM 681 Senior Honors Thesis Credits: 2 - 4
An independent and original study done under the direction of a member of the staff, recommended for seniors majoring in chemistry. Chem 681 and Chem 682 are taken in consecutive semesters. Students must enroll for a total of exactly 6 credits between the two courses, taking either 3 credits each semester or 2 credits one semester and 4 credits the other. Prereq: Honors candidacy
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 682 Senior Honors Thesis Credits: 2 - 4
Continuation of 681. Students must enroll for a total of exactly 6 credits between Chem 681 and 682, taking either 3 credits each semester or 2 credits one semester and 4 credits the other. Prereq: Honors candidacy
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 691 Senior Thesis Credits: 2 - 6
An independent and original study done under the direction of a member of the staff, recommended for seniors majoring in chemistry. Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 692 Senior Thesis Credits: 2 - 6
Continuation of 691  Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHEM 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHEM 704 Chemical Biology Credits: 2
Chemistry and biology of proteins, nucleic acids and carbohydrates; application of organic chemistry to problems in cell biology, biotechnology, and biomedicine. Prereq: Biochem 501 or equiv, 1 yr org chem & cons inst  Typically Offered: Occasionally

CHEM 713 Inorganic and Organometallic Chemistry of the Main Group Elements Credits: 1 - 3
A modular course consisting of 1), inorganic and 2), organometallic chemistry of main-group elements and 3), organosilicon chemistry. Prereq: Chem 511 or equivalent  Typically Offered: Occasionally
CHEM 714 Organometallic Chemistry of the Transition Elements  Credits: 2 - 3
Prereq:  Chem 511 or consent of instructor
Typically Offered: Occasionally

CHEM 762 Molecular Reaction Dynamics  Credits: 2 - 3
Microscopic approach to chemical dynamics.  Prereq:  Chem 562 or cons inst
Typically Offered: Occasionally

CHEM 763 Introduction to Molecular Spectroscopy  Credits: 2 - 3
Quantum mechanics of molecular rotation and vibration; principles of group theory; electronic, vibrational, and magnetic resonance spectroscopy in gas and condensed phases.  Prereq:  Chem 675 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  Typically Offered: Occasionally

CHEM 766 Molecular Recognition  Credits: 2 - 3
Origin, nature, classification, and description of intermolecular forces. The hydrophobic effect. Molecular complexes, binding constants, and their measurements. General principles of self-assembly, molecular recognition, complex formation, host design. Supramolecular systems and their dynamics. Micelles, bilayers, vesicles, biological membranes.  Prereq:  Chem 561 or equiv physical chem or cons inst
Typically Offered: Occasionally

CHEM 775 Electronic Structure of Molecules  Credits: 2 - 3
Applications of quantum mechanics to the electronic structure and properties of molecules.  Prereq:  Chem 675 or cons inst
Typically Offered: Occasionally

CHEM 777 Physical Chemistry of Surfaces  Credits: 2 - 3
Structure, thermodynamics, kinetics, and reactivity of molecules at the interfaces between gases, liquids and solids, with applications to catalysis, atmospheric chemistry, monolayers, and thin films.  Prereq:  Chem 562 or cons inst
Typically Offered: Occasionally

CHEM 801 Selected Topics in Inorganic Chemistry  Credits: 1 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

CHEM 841 Advanced Organic Chemistry  Credits: 3
Synthesis of simple and complex organic compounds.  Prereq:  Chem 641
Typically Offered: Occasionally

CHEM 842 Advanced Organic Chemistry  Credits: 1 - 3
Selected topics.  Prereq:  Cons inst
Typically Offered: Occasionally

CHEM 843 Advanced Organic Chemistry  Credits: 1 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

CHEM 860 Selected Topics in Physical Chemistry  Credits: 1 - 3
Prereq:  Grad st
Typically Offered: Occasionally

CHEM 864 Statistical Mechanics  Credits: 2 - 3
Fundamentals of statistical mechanics; applications to equilibrium and non-equilibrium properties of gases and condensed phases; selected advanced topics.  Prereq:  Chem 661 & 675 or cons inst
Typically Offered: Occasionally

CHEM 872 Selected Topics in Macromolecular and Biophysical Chemistry  Credits: 1 - 3
Prereq:  Grad st
Typically Offered: Occasionally

CHEM 900 Seminar-Inorganic Chemistry  Credits: 0
Prereq:  Grad st
Typically Offered: Occasionally
CHEM 901 Seminar-Teaching of Chemistry Credits: 0 - 1
The role of the teaching assistant in undergraduate chemistry instruction. Effective utilization of instructional aids. Innovations for better teaching. Prereq: Cons inst
Typically Offered: Occasionally

CHEM 915 Seminar-Structure and Bonding in Inorganic Compounds Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

CHEM 918 Single Molecule Approaches to Biology Credits: 1
A combination of recent literature and original research presentations relating to the use of single molecule techniques in biochemistry including fluorescence microscopy, tethered particle motion, patch-clamping, cryo-electron microscopy, optical trapping, magnetic tweezers, and super resolution microscopy. Prereq: Graduate student standing
Typically Offered: Fall

CHEM 920 Seminar-Analytical Chemistry Credits: 0
Prepared seminar covering diverse advanced topics. Prereq: Grad st
Typically Offered: Occasionally

CHEM 923 Seminar-Spectroscopy and Spectrochemical Analysis Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

CHEM 925 Rheology Research Seminar Credits: 0 - 1
Exploration of the most recent research literature on viscoelasticity, constitutive equations, non-Newtonian flow systems, fluid metering devices, kinetic theory of macromolecules, and rheooptical phenomena. Periodic reports on recent advances made by research workers in the various rheology groups on the Madison campus. Prereq: Graduate or professional standing
Typically Offered: Occasionally

CHEM 940 Seminar-Organic Chemistry Credits: 0
Prereq: Grad st
Typically Offered: Occasionally

CHEM 941 Seminar-Synthetic Organic Chemistry Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

CHEM 942 Seminar-Physical Organic Chemistry Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

CHEM 943 Seminar-Bio-Organic Chemistry Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

CHEM 945 Seminar-Chemical Biology (Advanced) Credits: 1
Recent published research in chemical biology and related areas. Intended for advanced graduate students, and required of all NIH Chemistry-Biology Interface trainees. Prereq: Consent of Instructor
Typically Offered: Occasionally

CHEM 960 Seminar-Physical Chemistry Credits: 0 - 2
Prereq: Grad st
Typically Offered: Occasionally

CHEM 964 Seminar: Molecular Dynamics Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally
CHEM 990 Research-Organic Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 991 Research General Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 992 Research-Physical Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 993 Research-Analytical Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 994 Research-Inorganic Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 995 Research-Macromolecular Chemistry Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 996 Research-Materials Chemistry Credits: 1 - 12
Graduate thesis research in materials chemistry. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHEM 998 Research-Chemical Biology Credits: 1 - 12
Graduate thesis research in Chemical Biology. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

CHICANA/O & LATINA/O STUDIES

CHICLA 102 Introduction to Comparative Ethnic Studies Credits: 3 - 4
This course introduces students to a multicultural history of the United States, focusing on each of the major ethnic groups: European Americans, African Americans, Native Americans, Chicano/as, Latino/as and Asian Americans. Prereq: Fr and So only; others by cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall

CHICLA 201 Introduction to Chicana/o and Latina/o Studies Credits: 3
Introduction to the interdisciplinary study of Chicanas/os in the United States. Students will become acquainted with recent scholarly literature, paradigms, theories, and debates within Chicana/o studies pertaining to the historical, economic, cultural, and sociopolitical dimensions of the Chicana/o experience in the United States. Prereq: Open to Fr & So only
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 210 Chicana/o and Latina/o Cultural Studies Credits: 3
Introduction to the cultural worlds of Chicana/os and Latina/os in the U.S. Examines how diverse peoples came to understand themselves as members of a racial, ethnic, and cultural community by exploring the production of music, art, theater, film, television, and literature. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 230 Topics in Chicana/o and Latina/o Studies Credits: 3 - 6
Topics vary each semester, but may include history, literature, media, political science, culture, social work, etc., as they relate to Chicana/os and Latina/os in the United States. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
CHICLA 231 Politics in Multi-Cultural Societies Credits: 3 - 4
Race, ethnicity, and religion as political factors; cultural pluralism, politics, and policy in the United States and selected other multi-cultural politics. Prereq: Fr or So st only
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 245 Chicana and Latina History Credits: 3
Introduces the cultural, economic, social, and political history of Chicanas and Latinas in the U.S. and focuses on four major themes: contact between different ethnic/racial groups; ideas of nation and nationalism; constructions of identity; and struggles for social justice. Prereq: Open to Fr
Ethnic Studies: Yes  General Education: COM B  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHICLA 299 Directed Study Credits: 1 - 3
Prereq: Requires consent of chair & instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 301 Chicana/o and Latina/o History Credits: 3
Examines the history of the making of a people from pre-hispanic time to the present. Examines how people of Mexican and Latin American descent in the United States have come to think of themselves as constituting a collectivity by examining the social, cultural, and political worlds of Chicana/os and Latina/os. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 330 Topics in Chicano/a Studies Credits: 3 - 4
An examination of specific themes in Chicano/a life, ways and culture. Topics may include border culture, Chicano/a ethnicity and identity, and Mexican immigration to the United States. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 332 Latinas: Self Identity and Social Change Credits: 3
Explores the multiracial and multicultural reality of Latina societies by becoming familiar with the history and cultures of Chicana, Cuban-American, and Puerto Rican women. Interdisciplinary readings in law, journalism, public policy, history, and self-reflective literature. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 347 Race, Ethnicity, and Media Credits: 3
Introduction to the changing images of race and ethnicity in U.S. entertainment media and popular culture. Surveys history, key concepts and contemporary debates regarding mediated representation of ethnic minorities. Critical and cultural studies approaches are emphasized. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 368 Chicana/o and Latina/o Literatures Credits: 3
Course explores historical, political, and aesthetic roots and directions of Latina/o and Chicana/o short stories, novels, poetry, music, plays, films, and essays. Intermediate/advanced study for English majors and/or CLS certificate program students. Students who have taken English 357 prior to fall 2014 may not enroll in this course. Prereq: Junior standing & 6 credits literature, or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 419 Latino/as and Media Credits: 3
Critical and historical survey of the participation and representation of Latino/as in U.S. film, television, and popular culture, with a primary focus on Hispanic representation in Hollywood-produced imagery. The counter-images of Latino and Latina media producers also will be explored.
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 425 Chicana and Latina Feminisms, Arts, and Media Credits: 3
An introduction to Chicana and Latina history and feminist activism, writing, and creative expression. Surveys Chicana/Latina participation and representation in society, the arts, the media, and popular culture. Prereq: Chic/Std 101 or women's studies intro crse or Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
CHICLA 435 Colony, Nation, and Minority: The Puerto Ricans' World Credits: 3
A historical introduction to the Puerto Rican experience, from island to mainland. Varieties of colonial rule, social institutions, cultural processes, and ethnic and national identity. Migration to the U.S. and social dynamics of stateside communities. Prereq: Junior standing or higher
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 459 Mexico in the Chicano and Chicana Literary Imagination Credits: 3
Focuses on analyzing the representations of Mexico in the literary works of Chicano and Chicana writers through out the twentieth century, and the function such representations play in their construction of identity, subjectivity, and community. This course will be offered in Spanish. Prereq: Spanish 223 & 224
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 461 The American West to 1850 Credits: 3 - 4
North American frontiers through the period of the Mexican War. Major Indian cultures of North America; the frontiers and differing imperial systems of Spain, France, and England; and the westward movement of the United States through 1850. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 462 The American West Since 1850 Credits: 3 - 4
The West as frontier and region since 1850. Indian-white and other interethnic relations; federal policies; the development of a resource-intensive economy, its environmental effects, and political conflicts accompanying it; and the ideology of the frontier in American culture. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CHICLA 464 Mexican-American Politics Credits: 3 - 4
This class examines the major problems and issues in Mexican-American politics since World War II. An emphasis will be placed on the ways in which race, class and culture have structured politics for the Mexican origin people. Prereq: Junior standing & Poli Sci 104, 184 or 404 or intro course in Chicano studies or intro course in Afro-Amer studies or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHICLA 468 Popular Culture in the Multi-racial United States Credits: 3 - 4
Origins and development of widely distributed popular culture in the nineteenth and twentieth centuries with emphasis on race and racialization. Exploration of production/performance and consumption of minstrel shows, wild west shows, film, radio, television, music in topical units. Prereq: So St
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CHICLA 470 Sociodemographic Analysis of Mexican Migration Credits: 3
Introduces students to social and demographic analysis and explanations of the historical and present day causes and consequences of migration of the largest immigrant group to the United States in the 20th century. Prereq: Chic/Std 201, 215, 220, 234, 210, or 205
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHICLA 510 Integrative Seminar in Chicana/o Studies Credits: 3
This integrative capstone course examines the history of Chicana/o studies and contemporary theoretical debates in the field. Among the areas considered are the following: the project of interdisciplinarity; difference, identity, community; race and class formations; gender and sexuality; and critical praxis. Open to graduate students. Prereq: 9 cr of Chicana/o studies, Jr or Grad st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHICLA 519 Transnational and Comparative Working-Class Cultures Credits: 3 - 4
Transnational, comparative examination of historical meanings of work and formation of working-class cultures. Focuses on relations of power and ideas about race, class, ethnicity, gender, and sexuality and how they shaped working-class culture in U.S., Latin America, Europe, and Asia. Prereq: Cons inst or Jr st and one of: History 405, 406, 407, 408, 430, Hist/Chicla 436
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
CHICLA 525 Dimensions of Latin@ Mental Health Services Credits: 3
This service-learning course provides training for students who aspire to one of the helping, health, or mental health professions and who currently work or who envision themselves working with Latin@ populations. The course provides important frameworks for working with Latin@s, including cultural, spiritual, linguistic and historical features relevant to this population and begin to apply their knowledge in service learning placements. Prereq: Junior standing or 6 credits of CHICLA Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHICLA 530 Advanced Topics in Chicana/o and Latina/o Studies Credits: 1 - 4
Topics vary each semester, but may include history, literature, media, political science, culture, social work, etc., as they relate to Chicana/os and Latina/os in the United States. Prereq: Cons inst or Jr st & 3 cr in Chicana/o studies  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CHICLA 657 Understanding Latino Families and Communities Credits: 3
Examines U.S. Latino families and communities, including social and economic conditions, cultural values, and issues of identity, race, gender, discrimination, acculturation and language. A service-learning course, students gain knowledge of and direct experience with social work issues in Latino communities. Prereq: Jr st  Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CHICLA 699 Directed Study Credits: 1 - 3
Prereq: Requires consent of chair & instructor  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CLASSICS

CLASSICS 100 Legacy of Greece and Rome in Modern Culture Credits: 3
Explores the legacy of ancient Greek and Roman Civilization in modern culture. Challenges students to appreciate the roots of western civilization and to understand and interpret reflections of antiquity in today's society. Prereq: Open to Fr  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CLASSICS 110 The Ancient Mediterranean Credits: 4
An examination of the evolution of the human community in the Mediterranean Basin, from the beginning of the earliest civilizations in the Near East (3,000 B.C.E.) until the collapse of the Roman Empire in the West (500 C.E.). Prereq: Open to all Undergrads  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CLASSICS 150 Ancient Greek and Roman Monsters Credits: 3
Ancient monsters were forces of chaos that threatened the natural order of the universe: they had to be contained, banished to the edges of the world or destroyed. But the Greeks and Romans also believed them to be magical beings that held the promise of special knowledge - of the past, of dangers to be faced, of musical arts - or which, like the Sphinx, possessed an enigmatic intelligence capable of fooling all but the most cunning of mortals. In this course we investigate these contrasting aspects of ancient monsters, drawing directly on texts (in translation) and works of art through which the Greeks and Romans explored the monstrous and its place in their world. We also compare ancient L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

CLASSICS 205 Greek and Latin Origins of Medical Terms Credits: 3
Prereq: Open to Fr  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

CLASSICS 227 Introduction to Biblical Literature (in English) Credits: 4
Introduction to the literature and literary history of the Old Testament, Apocrypha, Dead Sea Scrolls, Talmud, and Midrashim. Prereq: Not open to students that have completed HEBR ST 217  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
CLASSICS 237 Biblical Poetry in Translation Credits: 3
A study of the poetry of the Hebrew Bible as literature within the context of other ancient Near Eastern poetry.
Influence of biblical poetry on the Dead Sea Scrolls, New Testament, medieval Hebrew poetry, and Jewish and
Christian liturgies. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CLASSICS 241 Introduction to Biblical Archaeology Credits: 4
An overview of archaeology and its relationship to understanding the biblical world. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CLASSICS 300 The Art and Archaeology of Ancient Greece Credits: 3 - 4
Explores the art and archaeology of ancient Greece from the Bronze Age through the Hellenistic period. Prereq:
Open to all Undergrads
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CLASSICS 304 The Art and Archaeology of Ancient Rome Credits: 3 - 4
Explores the art and archaeology of ancient Italy, the Roman Republic, and the Roman Empire from the Iron Age
to Late Antiquity. Prereq: Open to all Undergrads
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CLASSICS 320 The Greeks Credits: 3
Greek literature in translation with emphasis on its social background. Prereq: Open to Freshmen
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CLASSICS 322 The Romans Credits: 3
Latin literature in translation with emphasis on its social background. Prereq: Open to Freshmen
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CLASSICS 330 Ancient Epic Credits: 3
This course is an introduction to the epic poetry of Greece and Rome. The reading list will vary, with assigned
texts selected from Homer's Iliad and Odyssey, Apollonius' Argonautica, Virgil's Aeneid, Ovid's Metamorphoses,
and Lucan's Civil War. The course will explore important themes of epic literature both as they are developed
within each text and as they evolve from the Greek
Archaic to the Hellenistic age, and eventually to Augustan Rome. The course will also explore the influence of
ancient epic on literature from the middle ages to the modern period. Prereq: Sophomore standing or consent of
instructor
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

CLASSICS 332 Prophets of the Bible Credits: 4
An introduction to the thought, literature, and history of the prophets of ancient Israel (in English). Prereq:
CLASSICS/JEWISH/LITTRANS/RELIG ST 227 or Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CLASSICS 335 King David in History and Tradition Credits: 3
An exploration of the literary and historical aspects of the text of 1-2 Samuel + 1 Kings 1-2; the history and
archaeology of Jerusalem during the tenth century B.C.E.; and the varieties of ways in which the figure of King
David has been received in subsequent religious and secular literature, visual art, music, television, and cinema.
Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

CLASSICS 340 Conspiracy in the Ancient and Modern Worlds Credits: 3
Focusing primarily on the world of the ancient Romans, this course (in translation) interrogates the phenomenon
and notion of "conspiracy" within the political, social, and religious spheres. After investigating some of the more
famous political conspiracies (e.g. the Catilinarian Conspiracy, assassination of Julius Caesar, etc.), we will then
turn to the structure of the traditional Roman
household, including the preeminence of the paterfamilias and the challenges that women, children, and/or slaves
pose to his notional "tyranny." Finally, we will consider a number of prominent religions that came into conflict with
Roman authorities - especially the mystery cults surrounding Bacchus as we
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall
CLASSICS 346 Jewish Literature of the Greco-Roman Period Credits: 3
Jewish literature from 350 BCE to 150 CE. The Greek and Hebrew sources include stories, religious poetry, wisdom books and apocalyptic texts. Readings (in translation) from the Apocrypha, Pseudepigrapha, and the Dead Sea Scrolls in their historical, cultural and literary setting. Prereq: Sophomore standing
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

CLASSICS 350 Rome: The Changing Shape of the Eternal City Credits: 3 - 4
Changing shape of Rome as a physical city and as a cultural metaphor from the Augustan age to the Renaissance. Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 351 Gender and Sexuality in the Classical World Credits: 3 - 4
Constructions of gender and sexuality in the classical world through art, literature and archaeology. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit

CLASSICS 360 Classical Mythology Credits: 3
Classical myths and their influence on later literature and art. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

CLASSICS 361 Topics in Greek Culture Credits: 1 - 3
Selected aspects of Greek culture (e.g., sports, women, the family, warfare), with emphasis on literary remains. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 362 Topics in Roman Culture Credits: 1 - 3
Selected aspects of Roman culture (e.g., sports, women, the family, warfare), with emphasis placed on literary remains. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 363 Topics in Classical Culture Credits: 1 - 3
Selected aspects of Classical culture (e.g., sports, women, the family, warfare), with emphasis on literary remains. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 366 Love Poetry of the Ancient Mediterranean Credits: 3
Selections from the love poetry of four ancient cultures: Egypt, Greece, Israel, and Rome. We will read a variety of lyric poems in the context of their larger socio-historical settings, observing the culturally conditioned representations of desire. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 369 Eureka! Technology and Practice in the Ancient World Credits: 3
Chronicles the development of technology and engineering in the civilizations of ancient Greece and Rome, with attention to earlier advances in Mesopotamia and Egypt. Imparts an appreciation for the legacy of ancient science and technology in modern culture. Prereq: Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 380 Topics in Classical Archaeology Credits: 3
Explores topics in the archaeology of ancient Greece and Rome, such as the Seven Wonders of the Ancient World, the archaeology of Greek and Roman religion, or Late Antique Palaces. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

CLASSICS 385 Biblical Archaeology Credits: 3
An examination of current problems, methods, and trends in archaeological research in the lands of the Bible. Prereq: Junior standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
CLASSICS 517 Religions of the Ancient Mediterranean Credits: 3
Ancient religions in their political, social and cultural contexts; topics include ritual, literary and artistic representations, religious persecutions, and/or modern approaches to the study of ancient religions. Chronological and geographical focus will vary between Greece, Rome, Judaea and Egypt. Prereq: Sophomore Standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CLASSICS 550 Advanced Interdisciplinary Studies in Medieval Civilization Credits: 3
An integrated treatment of a specific theme, to be announced by a group of specialists in different fields. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CLASSICS 554 Classical Backgrounds to English Literature Credits: 3
Prereq: So st
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CLASSICS 556 The Literature of Ancient Rome Credits: 3
Prereq: So st
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

CLASSICS 561 Greek and Roman Medicine and Pharmacy Credits: 3
Greek and Roman medicine and drug lore from the Pre-Socratics to Oribasius (c. 600 B.C. - A.D. 350), including the backgrounds of ancient Egyptian and Mesopotamian medicine. Prereq: Jr or Sr st, or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CLASSICS 568 Topics in Classical Literature Credits: 1 - 3
Selected aspects of Greek and Latin literature (e.g., genres such as epic or drama), with special attention to the relationship between the two literary traditions. Prereq: Jr st
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

CLASSICS 591 Undergraduate Seminar: Approaches to the Classical World Credits: 3
Prereq: At least 1 sem of Greek or Latin; chiefly for classical humanities, classics majors, or honors stdts
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CLASSICS 602 The Ancient Mediterranean City Credits: 3
Explores the archaeological and literary sources for the ancient Mediterranean city. Readings focus on the primary and secondary literature for the topography and architecture of a specific city or group of cities with a geographical, temporal, or political link. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CLASSICS 681 Senior Honors Thesis Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CLASSICS 682 Senior Honors Thesis Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CLASSICS 691 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CLASSICS 692 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CLASSICS 699 Directed Reading Credits: 1 - 3
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CLASSICS 700 The Art and Archaeology of Ancient Greece Credits: 3
Explores the art and archaeology of ancient Greece from the Bronze Age through the Hellenistic period. Prereq: Cons inst
Typically Offered: Fall
CLASSICS  704 The Art and Archaeology of Ancient Rome  Credits: 3
Explores the art and archaeology of ancient Italy, the Roman Republic, and the Roman Empire from the Iron Age to Late Antiquity.  Prereq:  Cons inst
Typically Offered:  Spring

CLASSICS  801 Seminar-Ancient History  Credits: 1 - 3
Special problems in Greek and Roman history studied in alternate years.  Prereq:  Grad st & reading knowledge of appropriate foreign language
Typically Offered:  Occasionally

CLASSICS  830 Advanced History of Philosophy  Credits: 3
Prereq:  Grad st & cons inst
Typically Offered:  Occasionally

CLASSICS  900 Advanced Seminar in Theory and Methodology  Credits: 3
This seminar is intended for graduate students in Classical and Ancient Near Eastern Studies who are enrolled in either the Classics option or the Hebrew Bible option. The aims of the seminar are to improve students' research skills, to help them develop important expertise not gained in general coursework, and to engage with topics that make CANES graduates distinctive when applying for positions after the PhD.  Prereq:  Graduate or professional standing
Typically Offered:  Every Other Spring

CLASSICS  970 Classical Literature and Culture  Credits: 3 - 4
Examines central literary and cultural issues in classical antiquity from both Greek and Roman perspectives.
Prereq:  Grad st or cons inst
Typically Offered:  Occasionally

COMMUNICATION ARTS

COM ARTS  100 Introduction to Speech Composition  Credits: 3
Teaches students to give effective oral presentations in a variety of public speaking situations and to become better consumers of written and oral discourse. Students will also learn basic composition and outlining skills as well as library research techniques.  Prereq:  Not open to students who have credit for COM ARTS 105 or 181
General Education:  COM A  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

COM ARTS  105 Public Speaking  Credits: 2
Development of fundamental skills in the preparation, delivery, and evaluation of the common forms of public address. Students desiring honors should elect 181.  Prereq:  Not open to students who have credit for COM ARTS 100 or 181
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

COM ARTS  155 Introduction to Digital Media Production  Credits: 4
Teaches students the skills they need to produce, engage with, and understand new and emerging technologies within the context of communication and creative expression. Students will become more critical consumers and producers of digital media.  Prereq:  Open to all undergraduates
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

COM ARTS  181 Elements of Speech-Honors Course  Credits: 3
The process of oral communication; principles of effective speaking; application of principles in selected speaking and reading projects.  Prereq:  Not open to students who have credit for COM ARTS 100 or 105
General Education:  COM A  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

COM ARTS  198 Directed Study  Credits: 1 - 3
Prereq:  Open to Fr & So only. Graded on a Cr/N basis; requires written cons inst
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

COM ARTS  199 Directed Study  Credits: 1 - 3
Prereq:  Open to Fr & So only. Graded on a lettered basis; requires written cons inst
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prereq</th>
<th>L&amp;S Breadth:</th>
<th>L&amp;S Level:</th>
<th>L&amp;S Credit:</th>
<th>Typically Offered:</th>
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<tr>
<td>COM ARTS 200</td>
<td>Introduction to Digital Communication</td>
<td>3</td>
<td>Introduction to basic social scientific and humanistic theories and approaches to communication as applied to everyday and institutional deployments of digital media. Students engage in critical assessment of digital media content that shapes their daily lives. Prereq: Open to Freshmen</td>
<td>L&amp;S Breadth: Humanities or Soc Sci  L&amp;S Level: Elementary L&amp;S Credit: Counts for LAS credit Typically Offered: Fall</td>
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<td>COM ARTS 210</td>
<td>Topics in Communication Arts</td>
<td>3</td>
<td>Introductory exploration of a current topic in Communication Arts. Prereq: Varies with topic</td>
<td>L&amp;S Level: Elementary  L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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<td>COM ARTS 236</td>
<td>Bascom Course</td>
<td>3</td>
<td>A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr.</td>
<td>General Education: COM B  L&amp;S Level: Elementary L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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<td>COM ARTS 250</td>
<td>Survey of Contemporary Media</td>
<td>3</td>
<td>Key concepts for the critical analysis of television, film, radio, and digital media. Focusing primarily on meanings, aesthetics, technology, media industries, representations, and audiences. Prereq: Open to Freshmen. Not open to Seniors</td>
<td>L&amp;S Breadth: Humanities  L&amp;S Level: Elementary L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>COM ARTS 260</td>
<td>Communication and Human Behavior</td>
<td>3</td>
<td>Concepts and processes relevant to the study of communication and human behavior including approaches to communication inquiry, the dynamics of face-to-face interaction, and the pragmatic and artistic functions of public communication. Prereq: Open to Fr. Not open to Seniors</td>
<td>L&amp;S Breadth: Humanities or Soc Sci  L&amp;S Level: Elementary L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer</td>
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<td>COM ARTS 262</td>
<td>Theory and Practice of Argumentation and Debate</td>
<td>3</td>
<td>Practice in preparation and delivery of various types of argumentative speeches and debates. Prereq: Open to Fr</td>
<td>L&amp;S Level: Intermediate L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>COM ARTS 263</td>
<td>Speech Composition</td>
<td>3</td>
<td>Application of rhetorical theory to composition, study of model speeches, and writing of speeches. Prereq: Com Arts 100 or 181 or cons inst</td>
<td>L&amp;S Level: Intermediate L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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<td>COM ARTS 266</td>
<td>Theory and Practice of Group Discussion</td>
<td>3</td>
<td>Structure and dynamics of small group decision-making. Critical and creative problems in group interaction processes. Prereq: Not open to students who have taken COM ARTS 276</td>
<td>L&amp;S Level: Social Science L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring</td>
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<td>COM ARTS 272</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
<td>Survey of concepts, theories, and research concerning communication across all phases of interpersonal relationships, focusing on both theoretical and practical applications. Prereq: Not open to students who have taken COM ARTS 273 or 276</td>
<td>L&amp;S Level: Social Science L&amp;S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer</td>
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<tr>
<td>COM ARTS 273</td>
<td>Theory and Practice of Interpersonal Communication</td>
<td>3</td>
<td>Survey of concepts, theories, and research concerning communication across all phases of interpersonal relationships, focusing on both theoretical and practical applications. Does not satisfy the Com B requirement. Prereq: Not open to students who have taken COM ARTS 272 or 276</td>
<td>L&amp;S Level: Social Science L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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<tr>
<td>COM ARTS 288</td>
<td>Honors Seminar in Communication Arts</td>
<td>3</td>
<td>Freshmen/Sophomore Honors seminar. Topic varies. Prereq: Fr &amp; So only</td>
<td>L&amp;S Level: Elementary L&amp;S Credit: Counts for LAS credit Typically Offered: Occasionally</td>
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COM ARTS 298 Directed Study Credits: 1 - 3  
Prereq: Com Arts 198 or Jr st. Graded on a Cr/N basis; requires cons inst  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

COM ARTS 299 Directed Study Credits: 1 - 3  
Prereq: Com Arts 199 or Jr st. Graded on a lettered basis; requires cons inst  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

COM ARTS 310 Topics in Rhetoric and Communication Science Credits: 3  
Students explore a topic in rhetoric or communication science; the topic varies from semester to semester.  
Prereq: Sophomore standing  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

COM ARTS 313 Topics in Film and Media Studies Credits: 3  
Students explore a topic in film and media studies, history, and theory; the topic varies from semester to semester.  
Prereq: Sophomore standing  
L&S Breadth: Humanities  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

COM ARTS 325 Media and Human Behavior Credits: 3  
Investigate the ways in which individuals use, create, and respond to media content in the context of increasingly blurred boundaries between "mass" and "interpersonal" media. We will consider social scientific theories and research on a wide array of topics, including media uses and effects with regard to social connection, learning, judgments, perceptions, stereotypes, violence, consumption, and political participation.  
Prereq: Sophomore standing  
L&S Breadth: Social Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

COM ARTS 345 Online Communication and Personal Relationships Credits: 3  
Examines how personal relationships unfold in online communication contexts (social network sites, online dating, video games). Topics include impression formation and management, deception and trust, self-perception and identity, social support and relationship maintenance.  
Prereq: So st  
L&S Breadth: Social Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

COM ARTS 346 Critical Internet Studies Credits: 3  
Traces the Internet's history, reception, audience, industries, rhetorics, fictional and filmic narratives, and potential as a purveyor and transmitter of culture and values.  
Prereq: So st  
L&S Breadth: Humanities  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

COM ARTS 347 Race, Ethnicity, and Media Credits: 3  
Introduction to the changing images of race and ethnicity in U.S. entertainment media and popular culture.  
Surveys history, key concepts and contemporary debates regarding mediated representation of ethnic minorities. Critical and cultural studies approaches are emphasized.  
Prereq: Open to Fr  
Ethnic Studies: Yes  
L&S Breadth: Humanities  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

COM ARTS 350 Introduction to Film Credits: 3  
Explains how films work using classics such as CITIZEN KANE, VERTIGO, BATTLESHIP POTEMKIN, THE MATRIX, and DO THE RIGHT THING (all shown during the "lab" screenings). Students study film as an art form and a medium, cover all the major film types (silent, classical, and contemporary narrative cinema, art cinema, animation, documentary, and experimental film), and get introduced to two basic approaches to film criticism: authorship criticism and genre criticism. They learn to recognize film techniques--mise-en-scène, cinematography, editing, and sound--and to analyze how filmmakers make us watch, think, and feel.  
Prereq: Sophomore standing or Com Arts 250  
L&S Breadth: Humanities  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

COM ARTS 351 Television Industries Credits: 3  
Critical overview of the cultural industries driving television in the United States, from broadcast networks and cable to downloading and streaming, focusing on economic and regulatory structures, programming practices, labor, globalization, audiences, and adaptations to changing conditions in the digital age.  
Prereq: Sophomore standing or Com Arts 250  
L&S Breadth: Humanities  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring
COM ARTS 352 Film History to 1960 Credits: 3
Development of cinema as a communication medium and art form from its origins to the 1960s. Attention given to national cinemas and international trends through the study of landmark films. Prereq: Com Arts 350 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 353 Film History Since 1960 Credits: 3
A study of aesthetic, economic, and political developments in world cinema from 1960 to the present. Prereq: Com Arts 350
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 354 Film Styles and Genres Credits: 3
Critical, historical, and theoretical examination of specimen film styles and genres. Prereq: Com Arts 350 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 355 Introduction to Media Production Credits: 4
Theory and practice of media production and screenwriting. Prereq: Sophomore standing or Com Arts 155
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 357 History of the Animated Film Credits: 3
Survey of the development of animation as a motion picture production technique, as a film genre, a part of the Hollywood classical cinema, and an independent art form. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 358 History of Documentary Film Credits: 3
Development and history of documentary film and video from Lumiere to the present. Prereq: Com Arts 350 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 359 Sports Media Credits: 3
Examines sports media using the frameworks of media and cultural studies. The relationship between sports and popular culture provides an important site for understanding and critiquing the media's relationships to social, cultural, economic, and political structures. Topics for discussion will include sports media industries and technologies; representations of race, class, gender, sexual orientation, nationality, and other identities; and the intersection of sports media cultures with such issues as activism and social change, ethics and morality, gambling and fantasy sports, celebrity athletes, and fandom. Prereq: COM ARTS 250 or 351
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 360 Introduction to Rhetoric in Politics and Culture Credits: 3
An introduction to the study of rhetoric in politics and culture. Explores the interrelationship of theory, criticism, and practice. Students gain an understanding of rhetoric as a social force emerging from political and cultural contexts and as an influence on those contexts. Prereq: Sophomore standing or COM ARTS 260
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 361 Introduction to Quantitative Research in Communication Credits: 3
An introduction to social science research methods and statistical analyses applicable to the study of communication research and mass media effects. Prereq: So st and completion of QR-A General Education: OR-B  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 368 Theory and Practice of Persuasion Credits: 3
A theory-based examination of the role of communication in attitude formation and planned social change. Analysis and creation of persuasive messages. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 370 Great Speakers and Speeches Credits: 3
Significant speeches from throughout history, generally from the United States. Speakers studied include Pericles, Abraham Lincoln, Elizabeth Cady Stanton, Frederick Douglass, Emma Watson, John F. Kennedy, Barbara Jordan, Nelson Mandela. Prereq: Sophomore standing or COM ARTS 260
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
COM ARTS 371 Communication and Conflict Resolution Credits: 3
Examines intra- and interpersonal theories of the causes and functions of conflict. Focuses on message strategies for conflict resolution and/or management. Both theoretical and applied issues. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 372 Rhetoric of Campaigns and Revolutions Credits: 3
Public discourse as it affects and reflects the process of dynamic social change. Historical and contemporary instances of rhetorical processes. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 374 The Rhetoric of Religion Credits: 3
Rhetorical character of religious controversy and sectarian persuasion in Western religion. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 375 Ethics of Entertainment Media Credits: 3
Students develop skills for viewing and interrogating entertainment media through the lens of ethical theory and to articulate their own ethical stance on a diverse range of media, including documentary film, sports entertainment, reality television, and digital media. By approaching ethics from a media studies perspective, we will ask questions about how media are produced, how audiences are created and engaged, how communities and cultures are represented, and how we should respond to these different forms of media and the ethical questions that they raise. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 376 Topics in Digital Studies (Radio, Television, & Film) Credits: 3
Students explore topics in film and media studies, with a digital focus. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 377 Topics in Digital Studies (Communication Science & Rhetoric) Credits: 3
Students explore topics in communication science and rhetoric, with a digital focus. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 378 The Rhetoric of African American Discourse Credits: 3
Study of the rhetorical strategies of African Americans, focusing on historically important documents of oratory, argumentation, homiletic, and narrative. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 400 The Films of Alfred Hitchcock Credits: 3
Studies the major films of Alfred Hitchcock. Investigates the enduring power of his movies; contributions to genre and popular cinema; storytelling techniques; stylistic mastery; approach to romance, suspense, and action; status as an American auteur; and control over the audience's thoughts and feelings. Prereq: Com Arts 350 or consent of the instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 402 The Psychology of Communication Credits: 3
The role and function of information processing in human communication behavior. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 410 Miscommunication Credits: 3
Problematic aspects of miscommunication in the study of face-to-face interaction. Course helps explain why people often have so much difficulty understanding the intentions, interpretations, and meanings of other people's actions.
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
COM ARTS 418 Gender, Sexuality, and the Media Credits: 3
This course examines images of gender and sexuality in the media, with a focus on contemporary media in the U.S. Using theories from cultural studies, film and media studies, gender studies, and communication we will explore different processes and practices of gender and sexuality. We will look at the way that gender and sexuality are constructed through social, cultural, and economic forces, and the way that these identities intersect with other social identities such as race, ethnicity, and class. Through readings and class discussions we will consider the way that media impact our understanding of feminism and post-feminism, violence, celebrity, consumer culture, subcultures and activism.
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COM ARTS 419 Latino/as and Media Credits: 3
Critical and historical survey of the participation and representation of Latino/as in U.S. film, television, and popular culture, with a primary focus on Hispanic representation in Hollywood-produced imagery. The counter-images of Latino and Latina media producers also will be explored.
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 420 Asian Americans and Media Credits: 3
Examines representations of Asian American in American media using historical, analytical, and critical approaches. Issues of cultural production, identity, race, politics, and gender are linked to examinations of specific media forms. Prereq: Com Arts 347 or So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 448 Media and National Identity Credits: 3
Examination of the various roles that film, television, and other media play in creating, challenging, and negotiating national and global identities. Prereq: Com Arts 250 or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 449 Sound Cultures: Podcasting and Music Credits: 3
Sound plays a crucial but understudied role in experiences of media and cultural life. From the mundane sounds of our daily routines to the irresistible refrains of our favorite songs, sound (in its various guises as noise, music, echo, vibration, etc.) is fundamental to communications media and, more broadly, to our perceptions of the world around us. This class will introduce you to the emerging field of sound studies and encourage you to investigate the role sound and music (or lack thereof) play in various communications media. Through audio assignments such as the creation of podcasts, we will learn the basics of digital audio recording and editing software and how to present and distri
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 450 Cultural History of Broadcasting Credits: 3
Traces the development of broadcasting as a cultural institution, examining the emergence of radio and television within the context of national identity and globalization. Prereq: Com Arts 250
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 451 Television Criticism Credits: 3
Analysis of selected television programming, interpretation of contemporary television programs, and survey of existing critical approaches. Prereq: Com Arts 351
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 454 Critical Film Analysis Credits: 3
Intensive analysis of selected films, using contemporary critical theories and methods. Prereq: Com Arts 350 & Junior Standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 455 French Film Credits: 3
Survey of French cinema from 1895 to the present. Emphasis on aesthetic trends, film movements, film industry, and cultural context. Prereq: Com Arts 350 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
COM ARTS 456 Russian and Soviet Film Credits: 3
Survey of Russian and Soviet cinema from the pre-Revolutionary era to the present. Works by major filmmakers will be viewed and discussed in the context of cultural politics. Prereq: Com arts 350 or coursework in Russian area studies
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 458 Global Media Cultures Credits: 3
Analysis of media systems, practices and uses from a global perspective. Prereq: Com Arts 351
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 459 New Media and Society Credits: 3
Explores political, economic and cultural relationships between new media of communication and society, including issues of history, race, gender, class, globalization, national identity and everyday life. Prereq: Com Arts 346
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 460 Italian Film Credits: 3
General survey of Italian film and of the relationship between film and the other arts. Consideration of film theory and of the Italian and European socio-political situation in the context of film production. Prereq: Stdts taking crse for cr toward Ital major must have Ital 204 or equiv; all other stdts must have Com Arts 350 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

COM ARTS 462 American Independent Cinema Credits: 3
History of American independent narrative cinema with particular attention to the impact various art movements and subcultures have had on its development over the past 60 years. Prereq: Com Arts 350
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COM ARTS 463 Avant-Garde Film Credits: 3
This course examines the history and aesthetics of avant-garde/experimental film from its beginnings in the early 1920s to the present. Key aesthetic programs are studied with attention to their relation to adjacent movements in art and critical theory. Prereq: Com Arts 350 & 354
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 465 Editing and Post-production for Video and Film Credits: 4
Students focus on the theory and practice of video editing and post-production. They gain a thorough understanding of narrative editing techniques, color correction, audio post-production and the requisite software. The class discusses the art of post-production and how post-production affects narrative function in moving picture media (including films, music videos, and television). Assignments include editing a short film, color correction, sound editing/mixing and editing half of an assigned feature-length film. Students must complete Com Arts 355 and submit an application in order to be considered for this course. Prereq: Consent of instructor
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COM ARTS 466 Writing for Television and Film Credits: 3
Basic introduction to the elements of a successful dramatic screenplay. Particular emphasis placed on story concept, dramatic structure, character development, dialogue, and visual storytelling. Prereq: Com Arts 355 & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COM ARTS 467 Cinematography and Sound Recording Credits: 4
Learn the fundamentals of sync-sound moving image production, including cinematography, lighting, sound recording, and production logistics. With an emphasis on dramatic visual storytelling, students will produce five scenes from existing scripts, rotating the positions of director of photography, assistant camera, gaffer, mixer, and boom operator for each script. Additionally, directing, editing, and color grading will be covered, and students will be responsible for casting, location scouting, and set-building in order to successfully produce each scene. Students will leave the course knowing the interworkings of a film crew, the operation of digital cinema technologies, and have a better understanding of post-production
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
COM ARTS 468 Producing for Internet TV and Video Credits: 3
A laboratory and studio course for producing Internet television and video (which encompasses a wide range of media content, from expensive Netflix and Amazon shows to low-budget YouTube channels). With its focus on "producing" and the role of the producer, the course combines the hands-on production work of writing, shooting, and editing videos with an emphasis on entrepreneurship and the innovation of sustainable business models. Students will work in groups to produce videos across three Internet video genres-music video, comedy short, and commercial. All students will occupy the role of the producer for one of the assignments. Additionally, students will complete a final project that is
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 470 Contemporary Political Discourse Credits: 3
Examines themes, genres, and significant instances of contemporary political discourse, as well as issues and concerns that arise in public discussions of political discourse. Case studies and theoretical analyses are considered. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 472 Rhetoric and Technology Credits: 3
Explore the technologies of rhetoric and the rhetoric of technology's impact on the culture from which it emerges. Collect and apply a number of perspectives on the relationship between technology and society; explore the effect of various technologies on rhetorical practices; investigate the way that technology extends the body's capacity; think through collective affective reactions - such as optimism, panic, and wonder - in response to new technologies; and consider carefully why and how controversies about technology take shape in the public sphere. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 476 Nature of Criticism-The Public Arts of Communication Credits: 3
A survey of rhetorical criticism methods. Students apply these methods to landmark historical and contemporary texts - from presidential war discourse to women's suffrage rhetoric to timely political debates. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 478 Rhetoric and Power on the Internet Credits: 3
Explores and analyzes Internet communication as a magnifier, transmitter, and limiter of power for both individual people and institutions with special attention to the roles of politics, social issues, and justice. Students use rhetorical analysis to engage in the critical assessment of Internet media content that exerts power in their lives. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 509 Digital Media and Political Communication Credits: 3
Course examines core questions related to the impacts of digital media (including but not limited to the Internet) on processes of political communication and the health of democratic governance in advanced industrialized democracies. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 513 Topics in Communication Arts: Study Abroad Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad prgm
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 522 Digitally Documenting Everyday Communication Credits: 3
Teaches the use of digital recording technologies, archiving, and analysis of everyday communication and culture. Surveys scholarly approaches to everyday expressive communication. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 525 Media, Deliberation, and Public Issues Credits: 3
Theoretical and empirical approaches to both media effects in deliberation and the uses of media as resources by political actors in shaping public issues. Prereq: Com Arts 260 & 325, or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
COM ARTS 540 Television Genres Credits: 3
An examination of a specific television genre, analyzing it as a narrative, economic, cultural, and political entity and exploring its role in perpetuating and/or challenging ideas of what society is or could be. Prereq: Com Arts 250 & 351; Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 547 Digital Game Cultures Credits: 3
An examination of the forms, practices, economies, institutions, politics, and modes of engagement that make digital games an important site of culture and power. Prereq: Communication Arts 250 and either 351 or 346; junior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 552 Contemporary Hollywood Cinema Credits: 3
An examination of contemporary Hollywood films focusing on the interrelations of cinematic narrative, style, technology, and institutions. It surveys the work of major directors and considers the box office impact of key genres and film cycles. Among the films screened in the course are DIE HARD, TOY STORY, INGLOURIOUS BASTERDS and INCEPTION. Prereq: COM ARTS 350
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 556 The American Film Industry in the Era of the Studio System Credits: 3
Influences of industrial structure, trade policies, foreign markets and censorship on Hollywood's production practices up to 1948. Prereq: Com Arts 350
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 557 Contemporary Media Industries Credits: 3
Analysis of major trends in media industries since the 1970s with special emphasis on conglomerations, globalization, new technologies, and changing modes of production and distribution. Prereq: Com Arts 350 or 351
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 558 Public, Community, and Alternative Media Credits: 3
Examination of media outside the dominant commercial model, especially local and alternative practices, and their cultural role. Prereq: Com Arts 351
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 560 Communication Theory Credits: 3
Introduction and survey of contributions of behavioral science and philosophy to a unified theory of communication. Prereq: Com Arts 260 or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 562 Theories of Deliberation and Controversy Credits: 3
Examination of theories of deliberation and controversy. Application of theories to public controversies. Prereq: Jr st & Com Arts 262 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 565 Communication and Interethnic Behavior Credits: 3
The relation of communication processes to interethnic and interracial attitudes and behavior. Social and psychological foundations of interethnic communication and conflict, group identification and communication processes, interpersonal communication and culture, communication about race and ethnicity, mass media content and effects. Prereq: Jr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COM ARTS 570 Classical Rhetorical Theory Credits: 3
Study of major theories of rhetoric from their origins in ancient Greece to Bacon, including theories of Plato, Aristotle, Cicero, Quintilian, Longinus, St. Augustine, and others. Prereq: Two of the following: Com Arts 262, 360, 370, 372, 374, 470, 472, or 562; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
COM ARTS 571 Contemporary Rhetorical Theory Credits: 3
Study of contemporary theories of rhetoric and significant conceptual issues in contemporary rhetorical inquiry. Attention to theorists within the field of rhetoric as well as to others who have influenced rhetorical theory. Prereq: Two of the following: Com Arts 262, 360, 370, 372, 374, 470, 472, or 562; or cons inst L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 573 Rhetoric of Globalization and Transnationalism Credits: 3
Students are introduced to basic concepts in global and transnational rhetorical studies and provided with the analytic tools to examine discourses about globalization and transnationalism produced by key global actors including transnational corporations, states, global institutions such as the World Bank, media producers, human rights advocates, and activists. Prereq: Junior Standing L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 574 Rhetoric of US Immigration and Naturalization Credits: 3
Students explore U.S. immigration and naturalization rhetoric across various spheres: federal, state, and grassroots. Patterns of immigration and naturalization rhetoric, the tactics different actors use, and the transformations that have taken place since the founding of the U.S. republic are examined. Prereq: Junior standing Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 575 Communication in Complex Organizations Credits: 3
Theoretical perspectives and research literature in organizational science, with special attention to social interaction. Prereq: Any crse in Com Arts with social studies or cons inst L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

COM ARTS 576 Principles of Rhetorical Criticism Credits: 3
Exploration of the nature, scope, and practice of rhetorical criticism. Emphasis upon critical theory and method. Prereq: Two of the following: Com Arts 262, 360, 370, 372, 374, 470, 472, or 562; or cons inst L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

COM ARTS 577 Dynamics of Online Relationships Credits: 3
Examines how people form their identities and manage their personal relationships using new communication technologies (social network sites, online dating, video games). Emphasis will be placed on how humans adapt to technology and use it for social purposes. Prereq: Prior crse on research methods in the social sciences (e.g., Com Arts 361, Psych 210, Soc 360 or Stats 301). Cons inst required for other methods crses L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

COM ARTS 605 Digital Studies Capstone Credits: 1
Students synthesize the material they have learned throughout the Digital Studies certificate program and explore opportunities for professional and personal growth based on their experience. To enroll, students must be in the Digital Studies Certificate student and be seniors. Prereq: Consent of instructor L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COM ARTS 608 Special Topics in Media and Cultural Studies Credits: 3
Specialized topics and issues in media and cultural studies. Prereq: Varies with topic L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COM ARTS 609 Special Topics in Production Credits: 3
Specialized advanced subject matter in film, video or digital media production. Prereq: Com Arts 355 or cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

COM ARTS 610 Special Topics in Rhetoric and Public Address Credits: 3
Specialized subject matter of current interest in rhetoric and public address. Prereq: Varies with topic L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COM ARTS 612 Special Topics in Communication Science Credits: 3
Specialized subject matter of current interest in communication theory and research. Prereq: Varies with topic L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
COM ARTS 613 Special Topics in Film Credits: 3
Specialized topics and issues in film history, theory, and criticism. Prereq: Varies with topic
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 614 Field Experience in Communication Credits: 1
Application of communication concepts to problems in such professional field settings as business organizations, media firms, political offices and organizations, and governmental agencies. (Does not count toward the 30-credit requirement for undergrad majors in communication arts.) Prereq: Undergrad com arts majors only; apprvl of specific internship design by com arts undergrad advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COM ARTS 615 Second Field Experience in Communication Credits: 1
Application of communication concepts to problems in such field settings as business organizations, media firms, political offices and organizations, and governmental agencies. (Does not count toward the 30-credit requirement for undergrad majors in communication arts.) Prereq: Com Arts 614; Undergrad com arts majors only; apprvl of specific internship design by com arts undergrad advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COM ARTS 616 Mass Media and Youth Credits: 3
Children's and adolescents' use of mass media and mass media effects on them. Particular attention is given to changes in comprehension and other cognitive activities that give insights into media use and effects. Prereq: JOURN 202, COM ARTS 325, HDFS 362, LSC 251
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 617 Health Communication in the Information Age Credits: 3
This course will examine the role of communication in health, how the revolution in information technology has affected health communication, and the assumptions about health information and communication that drive current efforts to use technologies. Prereq: Journ 565 or equivalent
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 651 Advanced Video Production and Direction Credits: 3
Remote video production in both documentary and narrative genres. Prereq: Com Arts 355 & written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 655 German Film Credits: 3
Important filmmakers from 1910 to the present; their relation to German cultural and social history of the period. Prereq: For German cr: one 300 level crse or above; or cons inst. For com arts cr: Com Arts 350
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 659 Advanced Motion Picture Production Workshop Credits: 4
A capstone course in digital cinema. Provides students with an immersive experience in the art of visual and aural storytelling. This workshop is structured around the creation of a half-hour finished film, planned and completed as a group, with roles matching those of a professional crew: director, production manager, cinematographer, camera assistant, gaffer, sound designer, art director, and editor. Working with an existing script and using state-of-the-art digital tools, students will gain knowledge in a wide variety of motion-picture production skills. Most importantly, students explore the meanings and nuances of a script, making the artistic choices necessary to bring the story to th
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COM ARTS 662 Media and Cultural Theory I Credits: 3
Survey of major theories, scholars, and debates in the field of cultural studies with special emphasis on the Birmingham School. Offers a set of working premises and methods for the study of media and popular culture. Prereq: Sr st & cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 663 Media and Cultural Theory II Credits: 3
Studies the diverse ways in which critics have reflected upon mass media since 1900. As a companion to Communication Arts 662, the course eschews cultural studies and instead surveys theories of media from a broad range of related disciplines. Prereq: Sr st & cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
COM ARTS 664 Classical Film Theory Credits: 3
Principal theories of cinema from the silent era to the 1960s. Prereq: Com Arts 350 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 665 Contemporary Film Theory Credits: 3
A survey and analysis of film theory from the mid-1960s to the present. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 667 History of American Public Address Credits: 3
Public discourse of selected movements and periods in American history. Prereq: Two of the following: Com Arts 360, 370, 372, 374, 470, 472, 570, 571, 576, or 675; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 671 Communication and Social Conflict Credits: 3
Survey of current theory and research on conflict in face-to-face interaction. Prereq: Com Arts 572 or 560 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 674 Rhetorical Analysis Credits: 3
Advanced criticism; comparisons of the discourse of diverse types and cultures. Prereq: Jr st & Com Arts 476 or 576 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 675 Rhetoric of Women's Social and Political Discourse Credits: 3
This course explores obstacles women have faced throughout American history in their struggle to obtain influence and equality in politics and society. Through the analysis of significant rhetorical texts, it identifies major discursive strategies employed by women and the impact of these strategies. Prereq: Two of the following: Com Arts 360, 370, 372, 374, 470, 472, 570, 571, 576, or 667; or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COM ARTS 681 Senior Honors Thesis Credits: 3
Prereq: Sr st. Member of the honors program & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 682 Senior Honors Thesis Credits: 3
Prereq: Sr st. Member of the honors program & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 691 Senior Thesis Credits: 2 - 3
Prereq: Sr st & 3.25 GPA and written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 692 Senior Thesis Credits: 2 - 3
Prereq: Com Arts 691 & written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COM ARTS 698 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st. Graded on a Cr/N basis; requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COM ARTS 699 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st. Graded on a lettered basis; requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COM ARTS 704 Intellectual Sources of Contemporary Composition Theory I-Classical Credits: 3
Selected issues in the history of rhetoric, concentrating on classical theories of invention, and their importance for contemporary issues in composition theory. Prereq: Graduate standing
Typically Offered: Occasionally

COM ARTS 760 Advances in Communication Theories Credits: 3
In-depth review and evaluation of behavioral and social scientific theories of human communication. Prereq: Grad st
Typically Offered: Occasionally
COM ARTS 762 Communication Research Methods Credits: 3
Epistemological and methodological principles of behavioral and social scientific research of particular relevance to communication research, including various research designs and modes of observation, casual inferences, and basic hands-on experiences in empirical research. Prereq: Grad st
Typically Offered: Occasionally

COM ARTS 768 Theoretical Perspectives on Persuasive Communication Credits: 3
Surveys classic and contemporary theory and research on persuasive communication. After explicating "attitude," students will examine the operation of ethos, logos, and pathos, qualities of message structure and style, and social issues relevant to influence processes. Prereq: Grad st or cons inst
Typically Offered: Occasionally

COM ARTS 799 Independent Study Credits: 1 - 3
Devised by a staff member in collaboration with students. Prereq: Grad st & written cons inst
Typically Offered: Occasionally

COM ARTS 817 Couple Relationships: Theory, Research, and Application Credits: 3
This course will review current research on the nature, dynamics, and developmental course of couple relationships and explore the implications of this scientific knowledge for prevention/intervention programs and policy. Contemporary theories and empirical research will be examined. Prereq: Graduate or professional standing
Typically Offered: Occasionally

COM ARTS 831 Psychology of Entertainment Media Credits: 3
This course is designed to provide an in-depth look into entertainment media, including its effects on individuals, social groups, and society. The focus on entertainment content is across platforms - from "mass" to social media. Emphasis will be paid to psychological, individual-level effects. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

COM ARTS 902 Film Colloquium Credits: 1
Studies in advanced research in film history, theory and criticism. Prereq: Grad st in com arts
Typically Offered: Occasionally

COM ARTS 903 Media and Cultural Studies Colloquium Credits: 1
Current research in cultural studies, audience effects, broadcast regulation, history of broadcasting and comparative national systems. Prereq: Grad st in com arts
Typically Offered: Occasionally

COM ARTS 904 Communication Science Colloquium Credits: 1
Social scientific approaches to the study of interpersonal communication and media effects. Prereq: Grad st in com arts
Typically Offered: Occasionally

COM ARTS 905 Rhetoric Colloquium Credits: 1 - 3
Advanced research in rhetorical theory and criticism, and in the history of public address. Prereq: Grad st in com arts with major emphasis in rhetoric, or cons inst
Typically Offered: Occasionally

COM ARTS 940 Seminar: Media, Culture, and the Public Sphere Credits: 2 - 3
Analysis and critique of public sphere theories of the media, pre- and post-Habermas, including concepts of citizenship and nation, media and democracy, globalization and cultural hierarchies. Implications for media policy and structures. Prereq: Grad st
Typically Offered: Occasionally

COM ARTS 950 Seminar-Radio Television Film Credits: 2 - 3
Prereq: Grad st
Typically Offered: Occasionally

COM ARTS 955 Media History and Historiography Credits: 3
A seminar on post-structuralist historical theory, historiographical methods, and issues in historiography for students of media history. Introduction to archival research. Prereq: Grad st
Typically Offered: Occasionally
COM ARTS 958 Seminar in Film History Credits: 2 - 3  
Prereq: Grad st  
Typically Offered: Occasionally

COM ARTS 960 Seminar in Film Theory Credits: 2 - 3  
Prereq: Grad st  
Typically Offered: Occasionally

COM ARTS 966 Seminar-Modern Rhetorical Theory Credits: 2 - 3  
Prereq: Grad st; Com Arts 570 or cons inst  
Typically Offered: Occasionally

COM ARTS 967 Seminar- Problems in Communication and Public Address Credits: 2 - 3  
Prereq: Grad st  
Typically Offered: Occasionally

COM ARTS 969 Seminar: Contemporary Rhetorical Theory Credits: 2 - 3  
Prereq: Grad st  
Typically Offered: Occasionally

COM ARTS 970 Seminar in Communication Science Credits: 3  
A critical review of theoretical developments in social scientific studies of communication and its psychological and/or social impact. Topic varies with instructor. Prereq: Grad st  
Typically Offered: Occasionally

COM ARTS 976 Seminar in Rhetorical Criticism Credits: 2 - 3  
Prereq: Grad st  
Typically Offered: Occasionally

COM ARTS 990 Research and Thesis Credits: 1 - 9  
Independent research and writing under the supervision of a staff member. Prereq: Grad st & written cons inst  
Typically Offered: Occasionally

COMMUNICATION SCI & DISORDERS

CS&D 110 Introduction to Communicative Disorders Credits: 3  
A survey of the scientific basis of normal and disordered communication; covers speech, hearing, and language. Prereq: Open to Fr  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CS&D 201 Speech Science Credits: 3  
Anatomy and physiology of the speech production mechanism; acoustic characteristics of the speech signal. Prereq: None  
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CS&D 202 Normal Aspects of Hearing Credits: 3  
Provides students with background in the physical acoustics of sound, the anatomy and physiology of the auditory system, and the psychology related to hearing, known as psychoacoustics. Prereq: None  
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CS&D 210 Neural Basis of Communication Credits: 3  
Considers the neural basis for communicative behaviors. Provides understanding of the anatomy, physiology, and physiopathology of the central and peripheral nervous systems as they relate to normal and disordered communication. Prereq: Sophomore standing or consent of instructor  
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CS&D 240 Language Development in Children and Adolescents Credits: 3  
This course covers communication and language development from infancy to adulthood. Prereq: None  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
CS&D 303 Speech Acoustics and Perception Credits: 3
Detailed examination of the acoustic properties of the speech signal within the source-filter theory of speech production. Theories of speech perception pertaining to phoneme and word recognition are presented and discussed. Prereq: CS&D 201 and 202
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CS&D 315 Phonetics and Phonological Development Credits: 3
Introduction to the international phonetic alphabet and articulatory phonetics. Overview of typical and atypical phonological development. Prereq: CS&D 201, 240
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CS&D 318 Voice, Craniofacial and Fluency Disorders Credits: 3
The material in this course will provide a basis for understanding the communication problems of individuals with voice disorders, orofacial anomalies, and fluency disorders. Prereq: CS&D 201, 202, and 240
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CS&D 320 Introduction to Audiology Credits: 3
Hearing science, disorders and evaluation, conservation, and aural rehabilitation. Prereq: CS&D 202
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CS&D 371 Pre-Clinical Observation of Children and Adults Credits: 3
This writing-intensive course is the first course in the clinical education sequence. It emphasizes clinical writing, group participation, and observation of video and live treatment sessions to develop and improve observational skills related to communication behaviours and clinical teaching. (WI). Prereq: Consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CS&D 390 Practicum in Communicative Disorders Credits: 2
A writing-intensive practicum working with children from diverse cultures who are at risk for speech, language, and literacy challenges. Prereq: Jr st; com dis major; overall GPA 3.0, Com Dis 315, 371, 440; 25 hrs of clin observation & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CS&D 424 Sign Language I Credits: 2
Manual alphabet, numbers, and 300 basic signs in both American Sign Language (ASL) and Manually Coded English (MCE) systems. Class will emphasize words and sign skill for clinic/schools. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CS&D 425 Auditory Rehabilitation Credits: 3
Topics include scope of practice, current approaches to perception, production and conversational fluency development as they apply in auditory rehabilitation treatment in home, school, work and social settings. Prereq: CS&D 201, 202, and 320
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

CS&D 434 Sign Language II Credits: 2
Advanced beginner’s course emphasizing instruction and practice at a conversational level using American Sign Language (ASL) and Pidgin Signed English (PSE). Fingerspelling, short story comprehension and signing practice are the focus of this class. Prereq: CS&D 424
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

CS&D 440 Child Language Disorders, Assessment and Intervention Credits: 3
Language differences and disorders in various populations are covered, as well as means of assessment and intervention. Prereq: CS&D 240
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CS&D 455 Topics in Communicative Disorders Credits: 1 - 3
Lecture-discussion with or without laboratory component on current topics in normal aspects of communication or identification, treatment and research in speech-language pathology and audiology. Prereq: Open to all Undergrads
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
CS&D 481 Undergraduate Junior Honors Credits: 3
A writing-intensive introduction to research methodology in Communication Sciences and Disorders, emphasizing participant selection criteria, experimental design and methodology, data collection, and data analysis, leading to the design and future implementation of an independent research project. Activities include written and oral critiques of published research, written summaries of oral research presentations, and composition of an individual research proposal. Prereq: Admission to (or eligibility for) the Honors Program in Communication Sciences and Disorders
General Education: COM B  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

CS&D 503 Neural Mechanisms of Speech, Hearing and Language Credits: 3
Basic neuroanatomical and neurophysiological mechanisms underlying the communication process. Neuropathologies and their associated communication disorders. Prereq: Grad st in com dis or undergrad biol major with neurobiol option, or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit

CS&D 681 Senior Honors Thesis Credits: 3
Prereq: Sr st & cons of dept hrs adv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CS&D 682 Senior Honors Thesis Credits: 3
Prereq: Sr st & cons of dept hrs adv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

CS&D 698 Directed Study Credits: 1 - 6
Cr/N. Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CS&D 699 Directed Study Credits: 1 - 6
Program of reading devised by a staff member in collaboration with the student. Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

CS&D 702 Research Methods in Communication Sciences and Disorders Credits: 3
This course will introduce learners to research methods in communication sciences and disorders with the goal of producing clinicians and clinician-scientists who: (1) are conversant in and can use scientific principles in their daily lives research, and clinical practice; (2) evaluate scientific evidence as disseminated through multiple channels; (3) find and store research findings efficiently for use in clinical practice or research studies; and (4) understand and implement ethical use of human participants, animal subjects and responsible conduct of research principles in their careers. Prereq: Enrollment in the clin speech-lang pathology masters program or consent of instructor
Typically Offered: Occasionally

CS&D 703 Language and Learning Disorders of Children Credits: 3
Theoretical concepts of symbolic disorders with emphasis on variables which interfere with language learning and function. Prereq: Com Dis 440 or cons inst
L&S Level: Advanced  Typically Offered: Occasionally

CS&D 704 Acquired Language and Cognitive-Communication Disorders in Adults Credits: 3
Intervention for adults with acquired aphasia and cognitive-communication disorders, including principles of evaluation and treatment. Prereq: Com Dis 503
Typically Offered: Occasionally

CS&D 705 Motor Speech Disorders/Augmentative and Alternative Communication Credits: 3
The nature and classification of motor speech disorders, and techniques and methods which provide non-speaking children and adults with effective means of interaction and communication. Prereq: CS&D 503 and CS&D 703
Typically Offered: Occasionally

CS&D 706 Management and Assessment of Voice Disorders Credits: 3
Techniques applicable to children and adults with disorders of voice, both functional and organic in origin. Lecture plus lab or observation. Prereq: Com Dis 318 or cons inst
Typically Offered: Occasionally
CS&D 707 Swallowing Disorders Credits: 2 - 3
Presents information on the anatomy, physiology, and neural bases of normal swallowing, the various diseases that can affect swallowing function, the nature of swallowing dysfunction and ways to assess it, and treatment options for patients with swallowing disorders. Prereq: Grad st and cons inst
Typically Offered: Occasionally

CS&D 708 Fluency and Phonological Disorders Credits: 3
An advanced course concerning the etiology, definition, diagnosis, and management of fluency and phonological disorders in children and adults. Prereq: 2nd yr st in masters progm in speech-lang pathology
Typically Offered: Occasionally

CS&D 709 Language Development and Disorders in School Age Populations: School Methods and Procedures Credits: 3
This course will review contemporary literature relating to the language development and disorders of school age children and adolescents. Emphasis is on a description of disorders, assessment techniques, and school methods and procedures. The course addresses UW-Madison Teacher Education Standards; WI Rules and Statutes, Teaching Standards stipulated in PI 34. Prereq: CS&D 703
Typically Offered: Occasionally

CS&D 712 Introduction to Clinical Methods Credits: 1
This is the first clinical methods course for entering speech-language pathology graduate students. The course provides learning opportunities to increase students' knowledge and skills related to assessment and intervention of persons with communication disorders. It is a forum for discussion, reflection and practicing clinical skills. Prereq: None
Typically Offered: Fall

CS&D 713 Introduction to Medical Speech Pathology Credits: 1
The course content focuses on methods for participating in medical site speech pathology including professionalism, documentation, insurance, ethics, and counseling. Prereq: Com Dis 503, 702, 707, 708, and 790
Typically Offered: Spring

CS&D 714 School Methods and Procedures in Speech-Language Pathology Credits: 1
The course content focuses on evidence-based practices, assessment and evaluation frameworks, and clinical methods related to school services in speech-language pathology. Prereq: Com Dis 503, 702, 707, 708, and 790
Typically Offered: Fall

CS&D 752 Capstone in Communication Sciences and Disorders: Integration of Clinical and Research Methods Credits: 3
Designed to ensure students (1) can use scientific principles in their daily lives and clinical practice; (2) can evaluate scientific evidence as disseminated through multiple channels for use in research and clinical practice; (3) can understand and apply parallel modes of thinking in clinical practice and research. Prereq: CS&D 705, 706, 707, 708, 709
Typically Offered: Occasionally

CS&D 790 Practicum in Communicative Disorders Credits: 1 - 5
Supervised experience with persons manifesting communicative problems. Evaluation, rehabilitation, and conservation of hearing, language, and speech disorders in various clinical settings. Register for only 1 cr; Clinical Director authorizes any additional cr; sites on/off campus. Prereq: Consent of instructor
Typically Offered: Occasionally

CS&D 799 Independent Study Credits: 1 - 6
See description for Com Dis 999. Prereq: Cons dept & cons inst
Typically Offered: Occasionally

CS&D 805 Professional Issues: Diversity and Multicultural Populations Credits: 1
Evaluation and management of persons with communication disorders across diverse cultural, personal values and beliefs. Prereq: Grad st, cons inst
Typically Offered: Occasionally
**CS&D 806 Professional Issues: Medical Issues** Credits: 1
Evaluation and management of persons with communication disorders within a medical setting. Information regarding various medical settings, ethics, functional goals, and documentation (e.g. billing, reporting, etc.).
Prereq: Graduate or professional standing
Typically Offered: Occasionally

**CS&D 816 Acoustical Phonetics** Credits: 3
For department doctoral students. Acoustic aspects of speech production. Lecture plus lab. Prereq: Cons inst
Typically Offered: Occasionally

**CS&D 832 Pediatric Audiology** Credits: 3
Study of normal physical, social, cognitive, speech and language and auditory development in children, the causes and effects of childhood hearing loss, hearing screening and the principles of early intervention, and the behavioral and objective assessment of hearing in children. Prereq: Grad st & cons inst, Com Dis 850, 851, 852, 858
Typically Offered: Occasionally

**CS&D 833 Occupational Audiology** Credits: 2
Consideration of principles and issues regarding the effects of noise on people, of federal and state regulation of workplace noise, and of the practical aspects of hearing conservation for those exposed to occupational noise, non-occupational noise, or both. Prereq: Grad st, Com Dis 801,802, 821
Typically Offered: Occasionally

**CS&D 834 Counseling in Audiology** Credits: 2
Prereq: Grad st, Com Dis 821, 823, 832
Typically Offered: Occasionally

**CS&D 835 Clinical Research Methods** Credits: 3
Critical analysis of research in speech-language pathology and audiology including theoretical support, research design, statistical levels of measurement, methods of reporting research results, and drawing conclusions from the results. Students encouraged to pursue research interests. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 854
Typically Offered: Occasionally

**CS&D 836 Pediatric Habilitation/Rehabilitation** Credits: 3
Study of the principles and techniques of intervention with hearing impaired children, including the selection and fitting of amplification, the effect of hearing impairment on speech perception, production, and language, communication and educational options, and the re/habilitation of communication skills. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 856, 832, 863
Typically Offered: Occasionally

**CS&D 837 Auditory and Vestibular Pathologies I** Credits: 2
Survey of the most common peripheral auditory system pathologies and their presentation in the auditory evaluation. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 856, 858
Typically Offered: Occasionally

**CS&D 845 The Human Balance System: Structure, Assessment, and Rehabilitation** Credits: 2
Study of human balance function with emphasis on the vestibular system, including neurophysiology, testing, and rehabilitation. Clinical experience in electronystagmography (ENG) and videonystagmography (VNG), analysis of results, familiarization with rotational and posturography tests, and treatment techniques are included. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 860, 862
Typically Offered: Occasionally

**CS&D 846 The Human Balance System: Laboratory** Credits: 1
The focus will be on training the student to perform and analyze the results of electronystagmography (ENG) and videonystagmography (VNG) examinations, and practice the canaliith repositioning maneuver. If possible, students will observe the administration of rotational and posturography tests. Prereq: Grad st, cons inst, Com Dis 850,851, 852, 860, 862, con reg in 845
Typically Offered: Occasionally
CS&D 849 Geriatric Audiology: Diagnosis and Rehabilitation Credits: 2
A study of basic theories of aging, anatomical and physiological effects of aging on the auditory and balance systems, and resulting communication difficulties associated with aging. The course emphasizes both the diagnostic and rehabilitative challenges in working with elderly patients. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 856, 862
Typically Offered: Occasionally

CS&D 850 Hearing Science I: Basic Acoustics and Psychoacoustics Credits: 3
Study of anatomy and physiology of the human auditory system, with an emphasis on the peripheral system. Basic concepts in psychoacoustics are discussed with reference to the normal and pathological auditory systems. Prereq: Grad st & cons inst, Com Dis 202, 320
Typically Offered: Occasionally

CS&D 851 Hearing Sci II: Advanced Topics in Hearing and Balance Credits: 3
Introduction to advanced concepts, theories, and experimental procedures related to psychphysics, anatomy and physiology of the auditory and vestibular systems. The focus is on central mechanisms of hearing and balance, and the role that these processes play in psychophysical phenomena. Prereq: Grad st, cons inst, con reg in Com Dis 850
Typically Offered: Occasionally

CS&D 852 Hearing Assessment Credits: 2
Familiarizes students with the bases, purpose, rationale and procedures for tests of auditory function, the importance of understanding auditory function and available evidence as bases for test selection and the importance of the objective(s) of diagnostic procedures. Prereq: Grad st & con reg in Com Dis 853
Typically Offered: Occasionally

CS&D 853 Hearing Assessment Laboratory Credits: 1
Familiarize students with the procedures for tests of auditory function, the importance of understanding auditory function and available evidence as bases for test selections and the importance of realizing the objective(s) forming the bases of diagnostic procedures. Prereq: Con reg in Com Dis 852
Typically Offered: Occasionally

CS&D 854 Electroacoustics and Instrument Calibration Credits: 2
Systematic review of physical concepts of acoustics and electronics underpinning the practice of audiology, as well as formally adopted standards by which clinical environments, instruments and procedures are calibrated. Prereq: Grad st, cons inst & con reg in Com Dis 855
Typically Offered: Occasionally

CS&D 855 Electroacoustics and Calibration Laboratory Credits: 1
Laboratory experience in electroacoustic measurement and calibration of examination spaces, test equipment, and amplification systems pertinent to the practice of audiology. Prereq: Grad st, con reg in Com Dis 854
Typically Offered: Occasionally

CS&D 856 Amplification Systems I Credits: 2
Study of the components and electroacoustic characteristics of hearing aids and assistive listening devices, as well as approaches for selecting the devices and verifying their fitting. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 853, 891, con reg in Com Dis 857
Typically Offered: Occasionally

CS&D 857 Laboratory in Amplification Systems I Credits: 1
Testing, fitting, and repairing hearing aids, performing basic hearing aid tests and repairs, proper cerumen removal and ear impression atechniques, and using appropriate strategies in fitting. Electroacoustic evaluation and use of probe microphone measures in hearing aid fitting. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 853, con reg in 856
Typically Offered: Occasionally

CS&D 858 Physiological Assessment in Audiology I Credits: 2
Study of concepts and procedures physiological assessment of the auditory system, with emphasis on otoacoustic emissions and auditory brainstem responses. Clinical applications and case studies integrate these recordings with behavioral assessment of the auditory system. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, con reg in 859
Typically Offered: Occasionally
CS&D 859 Laboratory in Physiological Assessment of the Auditory System I Credits: 1
Laboratory experience in the procedures and interpretation of physiological assessment of the auditory system, with the major emphasis on otoacoustic emissions and the auditory brainstem response. Prereq: Grad st, cons inst, con reg in Com Dis 858
Typically Offered: Occasionally

CS&D 860 Physiological Assessment in Audiology II Credits: 2
Advanced study of physiological measures used by audiologists in threshold and diagnostic evaluations, including acoustic immittance, middle and long latency auditory evoked potentials, and P300, and MMN. Course includes an introduction to evaluation of the balance system. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 853, 858, 859, con reg in 861
Typically Offered: Occasionally

CS&D 861 Laboratory in Physiological Assessment of the Auditory System II Credits: 1
Laboratory experience in objective measures used by audiologists for threshold and diagnostic evaluations, including acoustic immittance, middle and long latency auditory evoked potentials, P300, and MMN. Demonstrations, projects, and case studies prepare students to administer and interpret these tests. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 853, con reg in 860
Typically Offered: Occasionally

CS&D 862 Auditory and Vestibular Pathologies II Credits: 3
Major disorders of the auditory and vestibular systems, with an emphasis on differential diagnosis of disorders of the endorgans and neural systems and multisystem disorders. Casual factors, treatment, prognosis, and case studies are included. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 858, 837
Typically Offered: Occasionally

CS&D 863 Implantable Auditory Prostheses Credits: 2
The audiological management of severe to profound hearing loss using implantable auditory prostheses. This course will focus on cochlear implants, and will also provide an introduction to the auditory brainstem implant. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 832, 856
Typically Offered: Occasionally

CS&D 864 Auditory Processing Disorders Credits: 2
A study of auditory processing disorders in children and adults. This course will cover aspects of a multidisciplinary assessment of auditory processing and the variety of treatment methods. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 832
Typically Offered: Occasionally

CS&D 865 Practice Management Credits: 2
Consideration of non-profit and for-profit practice models with emphasis on organizational structure, legal and tax implications, financial performance, policies and practices of personnel management, marketing strategies, risk management and professional ethics. Prereq: Grad st, cons inst
Typically Offered: Occasionally

CS&D 866 Amplification Systems II Credits: 2
Strategies for fitting hearing aids, including selection and recommendation, use of prescription gain formulas, and verification of gain. Considerations in geriatric and pediatric hearing aid fitting and ethical issues. Basic techniques in determining patient satisfaction with hearing aids. Prereq: Grad st, cons inst, Com Dis 850, 851, 852, 854, 856
Typically Offered: Occasionally

CS&D 867 School Methods for Audiologists Credits: 1
Designed to fulfill Wisconsin's Department of Public Instruction (DPI) licensing requirements for audiologists. This course will help students apply their knowledge and skills in assessment and intervention of hearing related disorders to the public school setting. Prereq: Au.D. student or cons inst
Typically Offered: Fall

CS&D 891 Clerkship in Audiology I Credits: 1 - 3
An introductory, first year, practicum focusing on the acquisition of beginning skills in both screening and diagnostic audiology. It provides initial training in the use of audiometric instruments and software, patient interactions, and reporting procedures. Prereq: Grad st & cons inst
Typically Offered: Occasionally
CS&D 892 Clerkship in Audiology II Credits: 1 - 3
This second year clerkship focuses on the physiologic assessment of the vestibular and the peripheral and central auditory systems. It also provides continued development of skills in the assessment of hearing and the implementation of treatment plans across all ages. Prereq: Com Dis 891
Typically Offered: Occasionally

CS&D 893 Clerkship in Audiology III Credits: 1 - 4
This third year clerkship provides opportunities to practice skills in settings outside of the university clinics. The goal is to advance all skills to the developing level so that the student can perform assessments and treatment with less supervision. Prereq: Com Dis 892
Typically Offered: Occasionally

CS&D 894 Externship in Audiology Credits: 2 - 4
The externship year continues development of skills in assessment of hearing and implementation of treatment plans across all ages. The goal is to develop skills to the mastery level where the student can perform competently with a minimum of supervision. Prereq: Com Dis 893
Typically Offered: Occasionally

CS&D 899 Capstone Study in Audiology Credits: 1 - 3
Independent work on a capstone project under the supervision of a faculty member. Prereq: Grad st, cons inst
Typically Offered: Occasionally

CS&D 900 Seminar-Speech Science Credits: 2 - 3
Focus varies with staff. Various aspects of physiological and acoustic phonetics and of speech perception. Prereq: Cons inst
Typically Offered: Occasionally

CS&D 913 Seminar-Problems in Voice Disorders Credits: 1 - 3
Symptomatology, etiology, diagnosis, and treatment of voice disorders with emphasis on current research procedures and findings and consideration of special problems. Prereq: Consent of instructor
Typically Offered: Occasionally

CS&D 921 Seminar-Problems in Audiology Credits: 1 - 3
Current interests in areas of auditory evaluation, pathology or rehabilitation. Prereq: Cons inst
Typically Offered: Occasionally

CS&D 945 Seminar: Language and Cognition Credits: 2 - 3
Relation of cognitive development to normal and deviant language acquisition and performance. Critical review of theoretical approaches and experimental data. Prereq: Grad st & cons inst
Typically Offered: Occasionally

CS&D 990 Research and Thesis Credits: 1 - 12
Under the supervision of a staff member. Prereq: Grad st & cons inst
Typically Offered: Occasionally

CS&D 999 Independent Studies Credits: 1 - 3
Creative project designed by the student and supervised by staff. Prereq: Grad st & cons inst
Typically Offered: Occasionally

COMPARATIVE LITERATURE

COMP LIT 201 Introduction to Pre-Modern Literatures/Impact on the Modern World Credits: 3
Critical study of pre-modern literatures from the ancient worlds to the Middle Ages; broad survey covering many national literatures, stressing cross-cultural literary relations and their impact on the modern world. Prereq: Open to Fr; not open to stdts who have taken Comp Lit 287
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

COMP LIT 202 Introduction to Modern and Contemporary Literature Credits: 3
Critical study of modern literature, from the 15th century to the 20th century; broad survey covering many national literatures, stressing cross-cultural literary relations and including emergent literatures. Prereq: Open to Fr; not open to stdts who have taken Comp Lit 288
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
COMP LIT 203 Introduction to Cross-Cultural Literary Forms Credits: 3
Introduction to the critical study of specific literary forms (e.g., comedy, short story) and the connections between literary forms and other cultural and artistic phenomena (e.g., cinema, TV, music, visual arts). Prereq: This crse is non-repeatable for comp lit majors. Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 205 Intro to Comparative Study of Race & Ethnicity, In & Beyond the U.S. Credits: 3
Comparative analysis of the modern categories of race and ethnicity as they have developed and are understood and practiced in diverse locations; course readings will include literary and non-literary texts and a 25% - 50% focus on race and ethnicity in the U.S. Prereq: Satisfaction of or exemption from Comm A requirement. Open to Fr
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP LIT 310 Introduction to Literary Criticism Credits: 3 - 4
Critical methodologies of comparative literature. General theories of literature and distinct approaches to literary texts. Required for the major. Prereq: So st and 6 cr of intro lit or con reg. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP LIT 350 Problems in Comparative Literatures and Cultures Credits: 3 - 4
Comparative study - historical, theoretical, critical - of literatures and literary studies in their interaction with cultural themes, with social formations, with seminal concepts and ideas, with non-literary disciplines as they inform reading and analysis of literature. Prereq: Jr st or completion of 2 sem of lit
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 351 Lyric Credits: 3 - 4
Comparative study of lyric poetry as a genre; its history, social functions, and critical-theoretical discussion, and the problems of its analysis and interpretation. Prereq: Jr st or completion of 2 sem lit. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 357 Fantasy and Science Fiction Credits: 3
Comparison of themes current in modern fantasy and science fiction writing with those found in literature of previous historical periods. Prereq: Six cr of literature or Jr st
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 358 Problems in Transnational Genre and Mode Credits: 3 - 4
Comparative study of the nature and substance of genre distinctions; relations between genre and mode in diverse literatures; critical analysis of texts in the context of literary distinctions of genre and mode - with attention to cross-cultural, transnational and historical perspectives. Prereq: Jr st or completion of 2 semesters of lit
Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 368 Literature and Ideas Credits: 3 - 4
Historical, analytical and theoretical study of the impact and relevance of seminal concepts and ideas. Prereq: Jr st or completion of 2 sem of lit. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 370 Comparative Problems in Periods and Movements Credits: 3 - 4
Comparative study of literatures of historical periods, international and inter-linguistic relations, flux of ideas, forms, styles; literary movements and trends, principles linking literary texts, their diversity and variation, their connection to relevant debates in aesthetics, philosophy, or other fields. Prereq: Jr st or completion of 2 sem of lit
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 371 Literary Criticism Credits: 3 - 4
Introduction to the basic trends and schools of literary criticism; in-depth study of representative critics from past centuries and from major contemporary schools. Prereq: Six cr of literature or cons inst. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
COMP LIT 375 Literature and Related Disciplines Credits: 3 - 4
Critical, analytical and theoretical examination of the methodological and practical application of non-literary disciplines to the study of literature in an international context. Prereq: Jr st or completion of 2 sem of lit. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 379 Literature and Ethnic Experience Credits: 3 - 4
Attempts to define through comparative analysis the ways in which ethnicity is constructed and problematized in literary texts. Prereq: Jr st or completion of 2 sem of lit. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 466 Literature, Media, the Arts Credits: 3 - 4
Comparative critical study of the theoretical and practical interactions of literature with the arts (music, fine art, plastic arts); with visual, material, or digital cultures; with the media - with attention to cross-cultural, transnational and historical perspectives. Prereq: Jr st or completion of 2 sem of lit. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 473 Thematics Credits: 3 - 4
Comparative study of the creation and perpetuation of themes and motifs in different cultural contexts, and the problems of their analysis and interpretation in specific literary (and other) works. Prereq: Jr st or completion of 2 sem of lit. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 475 Poetics and Literary Theory Credits: 3 - 4
Study of the changes and development of the systematics, theoretics, and mechanics of literary form and utterance. Prereq: Six cr of lit or cons inst. Lecture only: 3 cr; lecture and disc: 4 cr
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP LIT 500 The Comparative In and Beyond Comparative Literature Credits: 3
A bridge course on a wide range of comparative topics - literary, cultural, philosophical, historical, legal - between the Department of Comparative Literature and the departments of our affiliate faculty members. Open to advanced undergraduate and graduate students. Prereq: Jr St or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP LIT 681 Senior Honors Thesis Credits: 3
Prereq: Permission of dept honors advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP LIT 682 Senior Honors Thesis Credits: 3
Prereq: Completion of 681 or consent of department honors advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP LIT 690 Proseminar Credits: 3
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP LIT 691 Senior Thesis Credits: 2 - 3
Prereq: Senior standing, consult Undergrad advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP LIT 692 Senior Thesis Credits: 3
Prereq: Senior standing, consent of Undergrad Advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP LIT 698 Directed Study Credits: 1 - 6
Prereq: Graded on a Cr/N basis; requires permission of dept chairman
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COMP LIT 699 Directed Study Credits: 1 - 6
Prereq: Graded on a lettered basis; requires permission of dept chrmn
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
COMP LIT 702 Problems in Comparative Studies Credits: 3
Comparative methods and the range of the discipline exposed through consideration of a variety of possible approaches. Prereq: Grad st or cons inst
Typically Offered: Occasionally

COMP LIT 731 Teaching in the Discipline Credits: 1
Seminar and practicum for teaching assistants in comparative literature and other graduate students in humanities interested in learning about comparative methodology and pedagogy. Prereq: Grad st
Typically Offered: Occasionally

COMP LIT 750 Problems in Comparative Literatures and Cultures Credits: 3
Comparative study - historical, theoretical, critical - of literatures and literary studies in their interaction with cultural themes, with social formations, with seminal concepts and ideas, with non-literary disciplines as they inform reading and analysis of literature. Prereq: Grad st or cons inst
Typically Offered: Fall, Spring, Summer

COMP LIT 768 Literature and Ideas Credits: 3
The history and impact of seminal concepts. Prereq: Grad st or cons inst
Typically Offered: Occasionally

COMP LIT 770 Comparative Problems in Periods and Movements Credits: 3
Comparative study of literatures of historical periods, international and inter-linguistic relations, flux of ideas, forms, styles; literary movements and trends, principles linking literary texts, their diversity and variation, their connection to relevant debates in aesthetics, philosophy, or other fields. Prereq: Grad st or cons inst
Typically Offered: Fall, Spring, Summer

COMP LIT 771 Literary Criticism Credits: 3
History, theory, and practice. Prereq: Grad st or cons inst
Typically Offered: Occasionally

COMP LIT 775 Literature and Related Disciplines Credits: 3
Attempts to answer the question: What can the methods and discoveries of other disciplines contribute to the study of literature? Prereq: Grad st or cons inst
Typically Offered: Occasionally

COMP LIT 777 Literary Periods Credits: 3
Attempts to characterize the literature of well-defined historical epochs in terms of international and interlinguistic relations, the flux of ideas, forms, and styles. Prereq: Grad st or cons inst
Typically Offered: Occasionally

COMP LIT 822 Seminar-Translation Credits: 3
The theory and practice of translation. Prereq: Grad st
Typically Offered: Occasionally

COMP LIT 958 Seminar: Problems in Transnational Genre and Mode Credits: 3
Comparative study of the nature and substance of genre distinctions; of the relations between genre and mode in diverse literatures; of the critical analysis of texts in the context of literary distinctions of genre and mode - with attention to cross-cultural, transnational and historical perspectives. Prereq: Grad st
Typically Offered: Occasionally

COMP LIT 963 Seminar in Roots and Ramifications Credits: 3
Major sources and principal followers of a single figure, without regard to national or linguistic boundaries. Prereq: Grad st
Typically Offered: Occasionally

COMP LIT 966 Seminar-Literature, Media, the Arts Credits: 3
Comparative critical study of the theoretical and practical interactions of literature with the arts (music, fine art, plastic arts); with visual, material, or digital cultures; with the media - with attention to cross-cultural, transnational and historical perspectives. Prereq: Grad st
Typically Offered: Occasionally
COMP LIT 975 Seminar-Poetics and Literary Theory Credits: 3
Systematics, theoretics, and mechanics of literary form. Prereq: Grad st
Typically Offered: Occasionally

COMP LIT 976 Seminar in Poetics (Polyseminar) Credits: 1
Systematics, theoretics, and mechanics of literary and cultural forms. Prereq: Graduate or professional standing
Typically Offered: Occasionally

COMP LIT 990 Research and Thesis Credits: 1 - 12
Consult department chairperson. Prereq: Grad st, cons advisor
Typically Offered: Occasionally

COMP LIT 999 Independent Work Credits: 1 - 3
Consult department chairperson. Prereq: Grad st; cons advisor
Typically Offered: Occasionally

COMPUTER SCIENCES

COMP SCI 202 Introduction to Computation Credits: 3
An introduction to the principles that form the foundation of computer science. Suitable for students with a general background who wish to study the key principles of computer science rather than just computer programming. Prereq: MATH 095 or placement into MATH 101. MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Breadth: Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

COMP SCI 240 Introduction to Discrete Mathematics Credits: 3
Basic concepts of logic, sets, partial order and other relations, and functions. Basic concepts of mathematics (definitions, proofs, sets, functions, and relations) with a focus on discrete structures: integers, bits, strings, trees, and graphs. Propositional logic, Boolean algebra, and predicate logic. Mathematical induction and recursion. Invariants and algorithmic correctness. Recurrences and asymptotic growth analysis. Fundamentals of counting. Prereq: Math 221
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 250 Digital Society: The Impact of Computers and Computer Technology Credits: 3
Introduction to computers in the digital society; social changes they influence, and choices they present. Topics include: digital divide, role of computers in improving quality of life, electronic voting and governance, digital intellectual property rights, privacy, computers and the environment. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 252 Introduction to Computer Engineering Credits: 2
Logic components built with transistors, rudimentary Boolean algebra, basic combinational logic design, basic synchronous sequential logic design, basic computer organization and design, introductory machine- and assembly-language programming. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 270 Fundamentals of Human-Computer Interaction Credits: 3
User-centered software design including principles and methods for understanding user needs, designing and prototyping interface solutions, and evaluating their usability covered through lectures, hands-on in-class activities, and week-long assignments. Meets with Comp Sci 570. Prereq: May not receive credit for both Comp Sci 270 and Comp Sci 570.
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COMP SCI 298 Directed Study in Computer Science Credits: 1 - 3
Undergraduate directed study in computer sciences. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 301 Introduction to Data Programming Credits: 3
Instruction and experience in the use of a programming language for beginners. Program design; development of good programming style. No previous computing experience required. Recommended for non-CS and undecided majors. Prereq: Not open to students who have completed CS 302. Satisfied Quantitative Reasoning (QR) A requirement.
General Education: QR-B  L&S Breadth: Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer
COMP SCI 302 Introduction to Programming  Credits: 3
Instruction and experience in the use of an object-oriented programming language. Program design; development of good programming style; preparation for other computer science courses.  Prereq:  Satisfied Quantitative Reasoning (QR) A requirement
General Education:  QR-B  L&S Breadth:  Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

COMP SCI 304 WES-CS Group Meeting  Credits: 0 - 1
Small group meetings for Wisconsin Emerging Scholars - Computer Science (WES-CS) students. Meets for two hours each week in small groups to work together on problems related to the Comp Sci 302 course material.  Prereq:  Concurrent registration in Comp Sci 302 & membership in WES-CS. Open to Freshmen
L&S Level:  Elementary  Typically Offered:  Fall, Spring

COMP SCI 310 Problem Solving Using Computers  Credits: 3
Gives students an introduction to computer and analytical skills to use in their subsequent course work and professional development. Discusses several methods of using computers to solve problems, including elementary programming techniques, symbolic manipulation languages, and software packages. Techniques will be illustrated using sample problems drawn from elementary engineering. Emphasis is on introduction of algorithms with the use of specific tools to illustrate the methods.  Prereq:  Math 222
L&S Level:  Elementary  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring

COMP SCI 352 Digital System Fundamentals  Credits: 3
Logic components, Boolean algebra, combinational logic analysis and synthesis, synchronous and asynchronous sequential logic analysis and design, digital subsystems, computer organization and design.  Prereq:  Comp Sci/ECE 252
General Education:  QR-B  L&S Breadth:  Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

COMP SCI 354 Machine Organization and Programming  Credits: 3
An introduction to computer organization using assembly and machine language. Number representation, computer arithmetic, instruction sets, I/O interrupts, and programming interrupts. Projects involve detailed study and use of a specific computer hardware and software system.  Prereq:  Comp Sci 302 & ECE/Comp Sci 252
General Education:  QR-B  L&S Breadth:  Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring

COMP SCI 367 Introduction to Data Structures  Credits: 3
Study of data structures (including stacks, queues, trees, graphs, and hash tables) and their applications. Development, implementation, and analysis of efficient data structures and algorithms (including sorting and searching). Experience in use of an object-oriented programming language.  Prereq:  Comp Sci 302 or cons inst.
Stdts are strongly encouraged to take Comp Sci 367 within two semesters of having taken Comp Sci 302
General Education:  QR-B  L&S Breadth:  Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

COMP SCI 368 Learning a Programming Language  Credits: 1
For students interested in learning a particular programming language. Each 1-credit course focuses on a specific language offered at one of three levels: beginner, intermediate, and advanced.  Prereq:  Students may not receive credit twice for the same language at the same level.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring

COMP SCI 369 Web Programming  Credits: 3
Covers web application development end-to-end: languages and frameworks for client- and server-side programming, database access, and other topics. Involves hands-on programming assignments. Students attain a thorough understanding of and experience with writing web applications using tools popular in industry.  Prereq:  Comp Sci 367 or substantial prog exper & cons inst. Open to Fr
L&S Breadth:  Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring

COMP SCI 371 Technology of Computer-Based Business Systems  Credits: 3
Overview of computers, their attendant technology, and the implications of this technology for large-scale, computer-based information systems. Topics include hardware, system software, program development, files and data communications.  Prereq:  Comp Sci 302 or cons inst
L&S Breadth:  Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring, Summer
COMP SCI 402 Introducing Computer Science to K-12 Students  Credits: 2
Work in teams to lead Computer Science clubs and workshops for K-12 students at sites in the Madison area.
Design and lead activities to help K-12 students learn computational thinking and computer programming.
Prereq: Any course Computer Sciences (e.g., Comp Sci 202, Comp Sci 302, Comp Sci 310)
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 407 Foundations of Mobile Systems and Applications  Credits: 3
Design and implementation of applications, systems, and services for mobile platforms with (i) constraints, such as limited processing, memory, energy, interfaces, variable bandwidth, and high mobility, and (ii) features, such as touchscreens, cameras, electronic compasses, GPS, and accelerometers.  Prereq: Comp Sci 367 or equiv, or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 412 Introduction to Numerical Methods  Credits: 3
Interpolation, solution of linear and nonlinear systems of equations, approximate integration and differentiation, numerical solution of ordinary differential equations.  Prereq: Math 222 & either Comp Sci 240 or Math 234, & Comp Sci 302, or equiv, & knowledge of matrix algebra. Credit will not be given for both Comp Sci 412 & 416
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP SCI 425 Introduction to Combinatorial Optimization  Credits: 3
This course focuses on optimization problems over discrete structures, such as shortest paths, spanning trees, flows, matchings, and the traveling salesman problem. We will investigate structural properties of these problems, and we will study both exact methods for their solution, and approximation algorithms.  Prereq: Math 320 or 340 or 341 or 375
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COMP SCI 435 Introduction to Cryptography  Credits: 3
Cryptography is the art and science of transmitting digital information in a secure manner. This course will provide an introduction to its technical aspects.  Prereq: Math 320 or 340 or cons inst. Open to Fr
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COMP SCI 471 Introduction to Computational Statistics  Credits: 3
Classical statistical procedures arise where closed-form mathematical expressions are available for various inference summaries (e.g. linear regression; analysis of variance). A major emphasis of modern statistics is the development of inference principles in cases where both more complex data structures are involved and where more elaborate computations are required. Topics from numerical linear algebra, optimization, Monte Carlo (including Markov chain Monte Carlo), and graph theory are developed, especially as they relate to statistical inference (e.g., bootstrapping, permutation, Bayesian inference, EM algorithm, multivariate analysis).  Prereq: Stat 310 and Stat 333
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP SCI 475 Introduction to Combinatorics  Credits: 3
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 506 Software Engineering  Credits: 3
Ideas and techniques for designing, developing, and modifying large software systems. Topics include software engineering processes; requirements and specifications; project team organization and management; software architectures; design patterns; testing and debugging; and cost and quality metrics and estimation. Students will work in large teams on a substantial programming project.  Prereq: COMPSCI 367 and at least one of COMPSCI 407, 536, 537, 545, 552, 559, 564, 570, or 679
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
COMP SCI 513 Numerical Linear Algebra Credits: 3
Direct and iterative solution of linear and nonlinear systems and of eigenproblems. LU and symmetric LU
factorization. Complexity, stability, and conditioning. Nonlinear systems. Iterative methods for linear systems. QR-
factorization and least squares. Eigenproblems: local and global methods. Prereq: Math 340 or equiv, Comp Sci 302 or equiv
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COMP SCI 514 Numerical Analysis Credits: 3
Polynomial forms, divided differences. Polynomial interpolation. Polynomial approximation: uniform approximation
and Chebyshev polynomials, least-squares approximation and orthogonal polynomials. Numerical differentiation
and integration. Splines, B-splines and spline approximation. Numerical methods for solving initial and boundary
value problems for ordinary differential equations. Prereq: Math 340 or equiv, Comp Sci 302 or equiv
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COMP SCI 520 Introduction to Theory of Computing Credits: 3
Basics about the notion, capabilities, and limitations of computation: elements of finite automata and regular
languages, computability theory, and computational complexity theory. Additional topics include context-free
grammars and languages, and complexity-theoretic cryptography. Prereq: Comp Sci 240 & 367, or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 524 Introduction to Optimization Credits: 3
Introduction to mathematical optimization from a modeling and solution perspective. Formulation of applications
as discrete and continuous optimization problems and equilibrium models. Survey and appropriate usage of basic
algorithms, data and software tools, including modeling languages and subroutine libraries. Prereq: COMP SCI
302 and MATH 320 or 340
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 525 Linear Programming Methods Credits: 3
Real linear algebra over polyhedral cones; theorems of the alternative for matrices. Formulation of linear
Perturbation and sensitivity analysis. Applications and extensions, such as game theory, linear economic models,
and quadratic programming. Prereq: Math 443 or 320 or 340 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 526 Advanced Linear Programming Credits: 3 - 4
Review of linear programming. Polynomial time methods for linear programming. Quadratic programs and linear
complementarity problems and related solution techniques. Solution sets and their continuity properties. Error
bounds for linear inequalities and programs. Parallel algorithms for linear and quadratic programs. Prereq:
Comp Sci 525 or equiv, 302 or equiv, or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP SCI 532 Theory and Applications of Pattern Recognition Credits: 3
Pattern recognition systems and components; decision theories and classification; discriminant functions;
supervised and unsupervised training; clustering; feature extraction and dimensional reduction; sequential and
hierarchical classification; applications of training, feature extraction, and decision rules to engineering problems.
Prereq: ECE 331 or Math 431 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COMP SCI 533 Image Processing Credits: 3
Mathematical representation of continuous and digital images; models of image degradation; picture
enhancement, restoration, segmentation, and coding; pattern recognition, tomography. Prereq: ECE 330 or
cons inst; Math 320 or 340 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COMP SCI 534 Computational Photography Credits: 3
Study of sensing and computational techniques that enhance or extend the capabilities of digital photography by
using methods from computer vision and computer graphics to create new visual representations. Algorithms for
analyzing, improving, manipulating, combining, and synthesizing images. Prereq: Comp Sci 367
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
COMP SCI 536 Introduction to Programming Languages and Compilers Credits: 3
Introduction to the theory and practice of compiler design. Comparison of features of several programming languages and their implications for implementation techniques. Several programming projects required.  Prereq: Comp Sci/ECE 354 & Comp Sci 367
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 537 Introduction to Operating Systems Credits: 3 - 4
Input-output hardware, interrupt handling, properties of magnetic tapes, discs and drums, associative memories and virtual address translation techniques. Batch processing, time sharing and real-time systems, scheduling resource allocation, modular software systems, performance measurement and system evaluation.  Prereq: Comp Sci/ECE 354 & Comp Sci 367
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 538 Introduction to the Theory and Design of Programming Languages Credits: 3
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COMP SCI 539 Introduction to Artificial Neural Network and Fuzzy Systems Credits: 3
Theory and applications of artificial neural networks and fuzzy logic: multi-layer perceptron, self-organization map, radial basis network, Hopfield network, recurrent network, fuzzy set theory, fuzzy logic control, adaptive fuzzy neural network, genetic algorithm, and evolution computing. Applications to control, pattern recognition, nonlinear system modeling, speech and image processing.  Prereq: Comp Sci 302, or Comp Sci 310, or knowledge of C programming lang
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

COMP SCI 540 Introduction to Artificial Intelligence Credits: 3
Principles of knowledge-based search techniques, automatic deduction, knowledge representation using predicate logic, machine learning, probabilistic reasoning. Applications in tasks such as problem solving, data mining, game playing, natural language understanding, computer vision, speech recognition, and robotics.  Prereq: Comp Sci 367
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP SCI 545 Natural Language and Computing Credits: 3
The course covers basic techniques and tools in natural language processing: generative grammars, parsing, dictionary construction, semantic networks, generation of text from a knowledge base, natural language interfacing, and machine translation.  Prereq: Comp Sci 536 or 537 or 564 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP SCI 547 Computer Systems Modeling Fundamentals Credits: 3
An introduction to basic tools and applications for modeling and analysis of computer systems. Fundamentals of network flow graphs, graph models of computation and stochastic models of computer system performance. Network delay analysis and capacity planning, reachability analysis for deadlock detection in distributed systems, Markov Chains, elementary queueing theory, basic concepts of queueing network models and associated analyses.  Prereq: Math 223, Comp Sci 367, & Comp Sci/ECE 354
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 552 Introduction to Computer Architecture Credits: 3
The design of computer systems and components. Processor design, instruction set design, and addressing; control structures and microprogramming; memory management, caches, and memory hierarchies; and interrupts and I/O structures.  Prereq: ECE/Comp Sci 352 & Comp Sci/ECE 354
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 558 Introduction to Computational Geometry Credits: 3
Introduction to fundamental geometric computations and algorithms, and their use for solving engineering and scientific problems. Computer representations of simple geometric objects and paradigms for algorithm design. Applications from areas of engineering analysis, design and manufacturing, biology, statistics, and other sciences.  Prereq: Comp Sci 367 or equiv, Math 223 or equiv, or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
COMP SCI 559 Computer Graphics Credits: 3

COMP SCI 564 Database Management Systems: Design and Implementation Credits: 3 - 4
What a database management system is; different data models currently used to structure the logical view of the database: relational, hierarchical, and network. Hands-on experience with relational and network-based database systems. Implementation techniques for database systems. File organization, query processing, concurrency control, rollback and recovery, integrity and consistency, and view implementation. Prereq: Comp Sci/ECE 354 & Comp Sci 367 L&S Breadth: Physical Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COMP SCI 567 Medical Image Analysis Credits: 3
Present introductory medical image processing and analysis techniques. Topics include medical imaging formats, segmentation, registration, image quantification, classification. Prereq: CS 367 (or programming experience with some high-level programming language), Math 221, and some familiarity with introductory concepts in probability and linear algebra or by consent of the instructor. L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

COMP SCI 570 Introduction to Human-Computer Interaction Credits: 4
User-centered software design; (1) principles of and methods for understanding user needs, designing and prototyping interface solutions, and evaluating their usability, (2) their applications in designing web-based, mobile, and embodied interfaces through month long group projects. Meets with Comp Sci 270. Prereq: Comp Sci 202 or Comp Sci 302. May not receive credit for both Comp Sci 270 and Comp Sci 570. L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

COMP SCI 576 Introduction to Bioinformatics Credits: 3
Algorithms for computational problems in molecular biology. The course will study algorithms for problems such as: genome sequencing and mapping, pairwise and multiple sequence alignment, modeling sequence classes and features, phylogenetic tree construction, and gene-expression data analysis. Prereq: Comp Sci 367, Math 222 L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

COMP SCI 577 Introduction to Algorithms Credits: 3
Basic paradigms for the design and analysis of efficient algorithms: greed, divide-and-conquer, dynamic programming, reductions, and the use of randomness. Computational intractability including typical NP-complete problems and ways to deal with them. Prereq: (COMP SCI/MATH 240 or COMP SCI/MATH/STAT 475 and COMP SCI 367) or declared in Computer Science graduate program L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

COMP SCI 578 Contest-Level Programming Credits: 1
Training in computer programming for competitions: assessing the coding difficulty and complexity of computational problems, recognizing the applicability of known algorithms, fast coding and testing, team work. Prereq: COMP Sci 367 is required. COMP SCI 577 is suggested but not required L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

COMP SCI 579 Virtual Reality Credits: 3
This course introduces students to the field of virtual reality and focuses on creating immersive, interactive virtual experiences. Survey topics include historical perspectives on virtual reality technology, computer graphics and 3D modeling, human perception and psychology, human computer interaction and user interface design. This course is designed for students with backgrounds in Computer Science, Engineering, Art, Architecture and Design. Students will work in interdisciplinary teams on projects, culminating in a final event that will be showcased to the public. While not an official prerequisite, the class will be technologically motivated; therefore students should be comfortable reading computer code. L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
COMP SCI 635 Tools and Environments for Optimization Credits: 3
Formulation and modeling of applications from computer sciences, operations research, business, science and engineering involving optimization and equilibrium models. Survey and appropriate usage of software tools for solving such problems, including modeling language use, automatic differentiation, subroutine libraries and web-based optimization tools and environments. Prereq: Comp Sci 302, Math 340 or equiv
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP SCI 638 Undergraduate Topics in Computing Credits: 1 - 4
Prereq: Consent of instructor
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 640 Introduction to Computer Networks Credits: 3
Architecture of computer networks and network protocols, protocol layering, reliable transmission, congestion control, flow control, naming and addressing, unicast and multicast routing, network security, network performance widely used protocols such as Ethernet, wireless LANs, IP, TCP, and HTTP. Prereq: Comp Sci 537
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 642 Introduction to Information Security Credits: 3
Senior level undergraduate course covering various topics on information security. Covers a wide range of topics, such as cryptographic primitives, security protocols, system security, and emerging topics. Prereq: Comp Sci 537 or cons inst. Elementary knowledge of mathematical logic and discrete probability theory also required
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 679 Computer Game Technology Credits: 3
Survey of software technology important to computer games and other forms of interactive technology. Real-time image generation, managing complex geometric models, creating virtual characters, simulating physical phenomenon, networking technology for distributed virtual environments. Prereq: Comp Sci 559
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

COMP SCI 681 Senior Honors Thesis Credits: 3
Prereq: Honors cand and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP SCI 682 Senior Honors Thesis Credits: 3
Prereq: Honors cand and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP SCI 691 Senior Thesis Credits: 2 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 692 Senior Thesis Credits: 2 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 698 Directed Study Credits: 1 - 6
Prereq: Graded on a Cr/N basis; Jr or Sr st; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

COMP SCI 699 Directed Study Credits: 1 - 6
Prereq: Graded on a lettered basis; Jr or Sr st. Requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

COMP SCI 701 Construction of Compilers Credits: 3
Principles in the design of programming languages. Organization of translators and their relation to operating systems. Role of formal grammars in syntactic analysis. Design and implementation of a compiler. Methods of interaction with the translation process. Definition facilities and extensible languages. Prereq: Comp Sci 536
Typically Offered: Occasionally

COMP SCI 703 Advanced Topics in Programming Languages and Compilers Credits: 3
Advanced parsing techniques; automatic syntactic error correction; local and global code optimization; attribute grammars; programming language design issues (data and control abstractions, specification and verification of high-level languages). Prereq: Comp Sci 701
Typically Offered: Occasionally
COMP SCI 704 Principles of Programming Languages  Credits: 3
Introduction to principles of advanced programming languages and programming-language theory. Topics include: lambda-calculus, functional languages, polymorphic functions, type inference, structural induction, lazy evaluation, operational semantics, denotational semantics, and axiomatic semantics.  Prereq:  Comp Sci 536 or equiv, or cons inst
Typically Offered:  Occasionally

COMP SCI 706 Analysis of Software Artifacts  Credits: 3
Advanced course covering various analysis techniques used in software engineering. This course will cover techniques for analyzing various software artifacts. Some of the topics that will be covered are: model checking, testing, program analysis, requirements analysis, and safety analysis.  Prereq:  Comp Sci 536 or cons inst. A basic knowledge of mathematical logic is also required
Typically Offered:  Occasionally

COMP SCI 707 Mobile and Wireless Networking  Credits: 3
Design and implementation of protocols, systems, and applications for mobile and wireless networking, particularly at the media access control, network, transport, and application layers. Focus is on the unique problems and challenges presented by the properties of wireless transmission, various device constraints such as limited battery power, and node mobility.  Prereq:  Comp Sci 640 or ECE 537 or cons inst
Typically Offered:  Occasionally

COMP SCI 710 Computational Complexity  Credits: 3
Study of the capabilities and limitations of efficient computation. Relationships between models representing capabilities such as parallelism, randomness, quantum effects, and non-uniformity; and models based on the notions of nondeterminism, alternation, and counting, which capture the complexity of important problems.  Prereq:  Comp Sci 520
Typically Offered:  Occasionally

COMP SCI 714 Methods of Computational Mathematics I Credits: 3
Development of finite difference methods for hyperbolic, parabolic and elliptic partial differential equations. Analysis of accuracy and stability of difference schemes. Direct and iterative methods for solving linear systems. Introduction to finite volume methods. Applications from science and engineering.  Prereq:  Comp Sci 302, 412; Math 322, 340, 521; or equiv; or cons inst
Typically Offered:  Occasionally

COMP SCI 715 Methods of Computational Mathematics II Credits: 3
Introduction to spectral methods (Fourier, Chebyshev, Fast Fourier Transform), finite element methods (Galerkin methods, energy estimates and error analysis), and mesh-free methods (Monte-Carlo, smoothed-particle hydrodynamics) for solving partial differential equations. Applications from science and engineering.  Prereq:  Comp Sci 302, 412; Math 322, 340, 521, 714; or equiv; or cons inst
Typically Offered:  Occasionally

COMP SCI 719 Stochastic Programming Credits: 3
Stochastic programming is concerned with decision making in the presence of uncertainty, where the eventual outcome depends on a future random event. Topics include modeling uncertainty in optimization problems, risk measures, stochastic programming algorithms, approximation and sampling methods, and applications.  Prereq:  Comp Sci 525; Math 431 or Stat 311; or cons inst
Typically Offered:  Occasionally

COMP SCI 723 Dynamic Programming and Associated Topics Credits: 3
Typically Offered:  Occasionally
COMP SCI 726 Nonlinear Optimization I Credits: 3
Theory and algorithms for nonlinear optimization, focusing on unconstrained optimization. Line-search and trust-region methods; quasi-Newton methods; conjugate-gradient and limited-memory methods for large-scale problems; derivative-free optimization; algorithms for least-squares problems and nonlinear equations; gradient projection algorithms for bound-constrained problems; and simple penalty methods for nonlinearly constrained optimization. Prereq: Familiarity with basic mathematical analysis and either Math 443 or 320; or cons inst
Typically Offered: Occasionally

COMP SCI 727 Convex Analysis Credits: 3
Typically Offered: Occasionally

COMP SCI 728 Integer Optimization Credits: 3
Introduces optimization problems over integers, and surveys the theory behind the algorithms used in state-of-the-art methods for solving such problems. Special attention is given to the polyhedral formulations of these problems, and to their algebraic and geometric properties. Applicability of Integer Optimization is highlighted with applications in combinatorial optimization. Key topics include: formulations, relaxations, polyhedral theory, cutting planes, decomposition, enumeration. Prereq: COMP SCI/MATH/STAT/I SY E 525
Typically Offered: Occasionally

COMP SCI 730 Nonlinear Optimization II Credits: 3
Typically Offered: Occasionally

COMP SCI 731 Advanced Artificial Intelligence Credits: 3
Learning and hypothesis formation; knowledge acquisition; deductive and inductive inference systems; reasoning techniques involving time, nonmonotonic reasoning, spatial reasoning, truth maintenance systems; planning strategies. Prereq: Comp Sci 540 or cons inst
Typically Offered: Occasionally

COMP SCI 733 Computational Methods for Large Sparse Systems Credits: 3
Typically Offered: Occasionally

COMP SCI 736 Advanced Operating Systems Credits: 3
Advanced topics in operating systems, including process communication, resource allocation, multiprocess and network operating systems, kernel philosophies, fault-tolerant systems, virtual machines, high-level language systems, verifiability and proof techniques. Prereq: Comp Sci 537 or cons inst
Typically Offered: Occasionally

COMP SCI 737 Computer System Performance Evaluation and Modeling Credits: 3
Statistical techniques of computer system performance evaluation and measurement. System selection and tuning strategies. Deterministic and probabilistic models of process scheduling and resource allocation. Analytic and simulation models of computer systems. Systematic study of system architectures. Prereq: Math 222, Comp Sci 537 or 736, or cons inst
Typically Offered: Occasionally

COMP SCI 739 Distributed Systems Credits: 3
Basic concepts; distributed programming; distributed file systems; atomic actions; fault tolerance, transactions, program and data replication, recovery; distributed machine architectures; security and authentication; load balancing and process migration; distributed debugging; distributed performance measurement; distributed simulation techniques; distributed applications; correctness considerations and proof systems. Prereq: Comp Sci 736 or cons inst
Typically Offered: Occasionally
COMP SCI 740 Advanced Computer Networks Credits: 3
Advanced topics in computer communications networks: congestion and flow control; routing; rate-based protocols; high speed interfaces and technologies: metropolitan area networks; fast packet switching technologies; advanced applications; network services: name service, authentication, resource location. Prereq: Comp Sci 640
Typically Offered: Occasionally

COMP SCI 744 Big Data Systems Credits: 3
Issues in the design and implementation of big data processing systems, including: an overview of cluster architecture, key design goals (flexibility, performance and fault tolerance), popular execution frameworks, basic abstractions, and applications (e.g., batch analytics, stream processing, graph processing, and machine learning). Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

COMP SCI 747 Advanced Computer Systems Analysis Techniques Credits: 3
A survey of advanced analytical modeling techniques for performance analysis of computer systems. Techniques covered include discrete-parameter (embedded) Markov Chains, M/G/1 queues, stochastic Petri nets, queueing networks, renewal theory, and sample path analysis. Application areas include high performance computer architectures, databases, and operating system resource allocation policies. Prereq: Comp Sci 547 or cons inst
Typically Offered: Occasionally

COMP SCI 750 Real-time Computing Systems Credits: 3
Introduction to the unique issues in the design and analysis of computer systems for real-time applications. Hardware and software support for guaranteeing timeliness with and without failures. Resource management, time-constrained communication, scheduling and imprecise computations, real-time kernels and case studies. Prereq: ECE/Comp Sci 552 & Comp Sci 537 or cons inst
Typically Offered: Occasionally

COMP SCI 752 Advanced Computer Architecture I Credits: 3
Processor design, computer arithmetic, pipelining, multi-operation processors, vector processors, control units, precise interrupts, main memory, cache memories, instruction set design, stack machines, busses and I/O, protection and security. Prereq: ECE, Comp Sci 552 & Comp Sci 537
Typically Offered: Occasionally

COMP SCI 755 VLSI Systems Design Credits: 3
Overview of MOS devices and circuits; introduction to integrated circuit fabrication; topological design of data flow and control; interactive graphics layout; circuit simulation; system timing; organizational and architectural considerations; alternative implementation approaches; design project. Prereq: ECE 340, ECE/Comp Sci 352, ECE/Comp Sci 552
Typically Offered: Occasionally

COMP SCI 756 Computer-Aided Design for VLSI Credits: 3
Broad introduction to computer-aided design tools for VLSI, emphasizing implementation algorithms and data structures. Topics covered: design styles, layout editors, symbolic compaction, module generators, placement and routing, automatic synthesis, design-rule checking, circuit extraction, simulation and verification. Prereq: Comp Sci 367, good programming skills, Comp Sci/ECE 755 strongly recommended, Comp Sci/ECE 352
Typically Offered: Occasionally

COMP SCI 757 Advanced Computer Architecture II Credits: 3
Parallel algorithms, principles of parallelism detection and vectorizing compilers, interconnection networks, SIMD/MIMD machines, processor synchronization, data coherence, multis, dataflow machines, special purpose processors. Prereq: Comp Sci, ECE 752
Typically Offered: Occasionally

COMP SCI 758 Advanced Topics in Computer Architecture Credits: 3
Advanced topics in computer architecture that explore the implications to architecture of forthcoming evolutionary and revolutionary changes in application demands, software paradigms, and hardware implementation technologies. Prereq: Comp Sci/ECE 752 & 757, or cons inst
Typically Offered: Occasionally
COMP SCI 759 High Performance Computing for Applications in Engineering  Credits: 3
An overview of hardware and software solutions that enable the use of advanced computing in tackling computationally intensive Engineering problems. Hands-on learning promoted through programming assignments that leverage emerging hardware architectures and use parallel computing programming languages. Prereq: COMP SCI 302 or COMP SCI 368
Typically Offered: Fall

COMP SCI 760 Machine Learning  Credits: 3
Typically Offered: Occasionally

COMP SCI 761 Advanced Machine Learning  Credits: 3
Advanced computational approaches to learning. Quantification of learnability and rate of learning, probabilistic and other formalisms of learning, statistical and computational analysis of learning models, state-of-the-art learning algorithms. Prereq: COMP SCI 760
Typically Offered: Occasionally

COMP SCI 764 Topics in Database Management Systems  Credits: 3
Implementation of database management systems, the impact of new technology on database management systems, back-end database computers, distributed database management systems, concurrency control, and query execution in both distributed and centralized systems, implementation of multiple user views, roll-back and recovery mechanisms, database translation. Prereq: Comp Sci 564, 537 & 536 or cons inst
Typically Offered: Occasionally

COMP SCI 765 Data Visualization  Credits: 3
Principles of the visual presentation of data. Survey of Information Visualization, Scientific Visualization, and Visual Analytics. Design and evaluation of visualizations and interactive exploration tools. Introduction to relevant foundations in visual design, human perception, and data analysis. Encodings, layout and interaction. Approaches to large data sets. Visualization of complex data types such as scalar fields, graphs, sets, texts, and multi-variate data. Use of 2D, 3D and motion in data presentations. Implementation issues. Prereq: Graduate or professional standing
Typically Offered: Every Other Spring

COMP SCI 766 Computer Vision  Credits: 3
Fundamentals of image analysis and computer vision; image acquisition and geometry; image enhancement; recovery of physical scene characteristics; shape-from techniques; segmentation and perceptual organization; representation and description of two-dimensional objects; shape analysis; texture analysis; goal-directed and model-based systems; parallel algorithms and special-purpose architectures. Prereq: Comp Sci 540
Typically Offered: Occasionally

COMP SCI 767 Computational Methods for Medical Image Analysis  Credits: 3
Study of computational techniques that facilitate automated analysis, manipulation, denoising, and improvement of large-scale and high resolution medical images. Design and implementation of methods from computer Vision and Machine Learning to efficiently process such image data to answer biologically and clinically meaningful scientific questions. Prereq: Comp Sci 367 or an equivalent high level programming class, basic proficiency in Calculus and Linear Algebra
Typically Offered: Every Other Fall

COMP SCI 769 Advanced Natural Language Processing  Credits: 3
Develop algorithms and mathematical models for natural language processing tasks, including text categorization, information retrieval, speech recognition, machine translation, and information extraction. Focus is on the state-of-the-art computational techniques as they are applied to natural language tasks. Prereq: Comp Sci 540 or equiv
Typically Offered: Occasionally

COMP SCI 770 Human-Computer Interaction  Credits: 3
Principles of human-computer interaction (HCI); human subjects research methods and procedures, qualitative and quantitative data analysis; and semester-long research project situated in critical domains of HCI, including applications in ubiquitous, affective, assistive, social, and embodied computing. Prereq: Graduate or professional standing
Typically Offered: Fall
COMP SCI 776 Advanced Bioinformatics Credits: 3
Advanced course covering computational problems in molecular biology. The course will study algorithms for problems such as: modeling sequence classes and features, phylogenetic tree construction, gene-expression data analysis, protein and RNA structure prediction, and whole-genome analysis and comparisons. Prereq: BMI 576
Typically Offered: Occasionally

COMP SCI 777 Computer Animation Credits: 3
Survey of technical issues in the creation of moving and dynamic computer imagery. Principles of animation. Manual motion specification and keyframing. Procedural and simulation-based motion synthesis. Motion capture processing, editing and use. Animation systems. Modeling, rendering and video issues relating to animation. Image-based animation methods and warping. Applications of animation such as games and virtual environments. Basic introduction to artistic issues in animation, such as cinematography. Special effects for film and video. Prereq: Comp Sci 559
Typically Offered: Occasionally

COMP SCI 784 Foundations of Data Management Credits: 3
Foundational concepts in databases and data management. The first part of the course discusses topics on query languages (conjunctive queries, Datalog), their expressivity and complexity of evaluation. The second part studies advanced topics in modern data management, including data streams, massive parallelism, provenance, uncertain data management and privacy. There are no specific course prerequisites. It is strongly encouraged that the students are familiar with databases and relational algebra (COMP SCI 564 or equivalent). Knowledge of algorithms, complexity theory and probability will also be helpful. Prereq: Graduate or professional standing
Typically Offered: Occasionally

COMP SCI 787 Advanced Algorithms Credits: 3
Advanced paradigms for the design and analysis of efficient algorithms, including the use of randomness, linear programming, and semi-definite programming. Applications to data structures, approximating NP-hard optimization problems, learning, on-line and distributed problems. Prereq: Comp Sci 577 or 509
Typically Offered: Occasionally

COMP SCI 790 Master's Thesis Credits: 1 - 9
Prereq: Grad st; Master's candidates only
Typically Offered: Occasionally

COMP SCI 799 Master's Research Credits: 1 - 9
Prereq: Grad st; Master's candidates only
Typically Offered: Occasionally

COMP SCI 809 Mathematical Techniques in the Analysis of Algorithms Credits: 3
Techniques for quantitative analysis of algorithms. Charging arguments, amortization, probabilistic methods. Adversary and information lower bounds. Use of methods from combinatorics, complex analysis, and asymptotics in obtaining precise analyses of quicksort, chained hashing, and other algorithms. Prereq: Comp Sci 577, Math 321 or equiv & Math 431 or equiv
Typically Offered: Occasionally

COMP SCI 812 Arithmetic Algorithms Credits: 3
Survey of algorithms and design paradigms for exact arithmetic, as used in public-key cryptography, computer algebra, and pseudo-random number generation. Topics include primality testing, factorization of integers and polynomials, discrete logarithms, and (optionally) elliptic curves and integer lattices. Prereq: Math 541 & CS 367, or cons inst
Typically Offered: Occasionally

COMP SCI 837 Topics in Numerical Analysis Credits: 3
From advanced areas. Contents may vary. Prereq: Cons inst
Typically Offered: Occasionally

COMP SCI 838 Topics in Computing Credits: 1 - 3
From advanced areas. Contents may vary. May be repeated any number of times for credit. Prereq: Consent of instructor
Typically Offered: Occasionally
COMP SCI 841 Computational Cognitive Science Credits: 3
Studies the biological and computational basis of intelligence, by combining methods from cognitive science, artificial intelligence, machine learning, computational biology, and cognitive neuroscience. Prereq: Comp Sci 302 (or equivalent)
Typically Offered: Spring

COMP SCI 880 Topics in Theoretical Computer Science Credits: 3
Advanced topics in algorithms, complexity, and cryptography. The exact topic varies. Prereq: Cons inst
Typically Offered: Occasionally

COMP SCI 899 Pre-Dissertator Research Credits: 1 - 9
Prereq: Grad st, for post-masters degree, pre-dissertator stdts only
Typically Offered: Occasionally

COMP SCI 900 Advanced Seminar in Computer Science Credits: 0 - 1
Seminar on recent research on various aspects of computer science. Prereq: Cons inst
Typically Offered: Occasionally

COMP SCI 915 Computation and Informatics in Biology and Medicine Credits: 1
Participants and outside speakers will discuss current research in computation and informatics in biology and medicine. This seminar is required of all CIBM program trainees. Prereq: Cons inst
Typically Offered: Occasionally

COMP SCI 990 Dissertation Credits: 1 - 6
Prereq: Dissertator status
Typically Offered: Occasionally

COMP SCI 999 Dissertation Research Credits: 1 - 6
Advanced level mentored reading and research for dissertators. Prereq: Dissertator status
Typically Offered: Occasionally

E ASIAN LANGUAGES & LITERATURE

E ASIAN 101 First Semester Chinese Credits: 6
Introduces the basic grammar along with 900 Chinese characters of standard spoken Chinese. Eight hours weekly, three of which are lectures and five in small groups for oral practice. Within the year, students will have acquired elementary reading skill and the ability to communicate with native Chinese. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 102 Second Semester Chinese Credits: 6
Continuation of 101. Prereq: E Asian 101
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 103 First Semester Japanese Credits: 6
Phonological system and the basic grammatical patterns of modern colloquial Japanese, along with Hiragana, Katakana, and approximately 300 Chinese characters. Eight hours weekly. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 104 Second Semester Japanese Credits: 6
Continuation of 103. Prereq: E Asian 103 or satisfactory placement test scores
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 105 Elementary Korean Credits: 4
Essentials of modern spoken and written Korean. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 106 Elementary Korean Credits: 4
Continuation of E Asian 105. Prereq: E Asian 105
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring
E ASIAN 111 Elementary Conversational Chinese for Professionals I Credits: 3
This online course introduces students to basic conversational Chinese, with a focus on understanding and appreciating cultural beliefs, attitudes and practices, especially in a business or professional context. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 115 Environmental Humanities: Asian/Pacific Perspectives Credits: 3 - 4
Course offers a case-based approach to environmental studies from a humanistic perspective, taking into account diverse and connected transnational systems of Asia; materials draw on themes like forests, water, disaster, war, and conservation and wildlife. Course introduces disciplines in the Environmental Humanities (literature, religion, music, etc.) through studies in tradition, theory and practice across South Asia, Southeast Asia, East Asia and ocean and Pasifik regions including Aotearoa, New Zealand. Throughout the course we ask, how are environmental worldviews cast as the basis for action and understanding in the present? Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

E ASIAN 121 Elementary Chinese Credits: 3
Introduction to the fundamental phonetic system and grammar of standard spoken Chinese along with 400 characters. Meets four hours weekly with the emphasis on speaking. Prereq: Open to Freshmen. Credit will not be granted for both 121 & 101
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 122 Elementary Chinese Credits: 3
Continuation of 121. Prereq: E Asian 121. Credit will not be granted for both 122 & 101
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 123 Elementary Japanese Credits: 3
Elementary level skills in listening, speaking, reading and writing. Prereq: Open to Freshmen. Credit will not be granted for both 123 & 103
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 124 Elementary Japanese Credits: 3
Continuation of East Asian 123. Prereq: E Asian 123 or satisfactory placement test scores. Credit will not be granted for both 124 & 103
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 201 Third Semester Chinese Credits: 6
Continuation of first year. Contact hours same as first year. Prereq: E Asian 102
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

E ASIAN 202 Fourth Semester Chinese Credits: 6
Continuation of 201. Prereq: E Asian 201
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

E ASIAN 203 Third Semester Japanese Credits: 6
Further practice in speaking, reading, and writing. Approximately 500 more characters introduced. Conducted in Japanese. Eight hours weekly. Prereq: East Asian 104 or satisfactory placement test scores
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

E ASIAN 204 Fourth Semester Japanese Credits: 6
Continuation of 203. Prereq: E Asian 203 or satisfactory placement test scores
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

E ASIAN 213 First Semester Heritage Chinese Credits: 6
This course emphasizes reading and writing skills. Students will acquire a wide range of vocabulary, grammatical points and sentence patterns from a variety of readings about Chinese families and Chinese culture. They will also learn how to write compositions about the covered topics. Prereq: Students should take placement tests including oral interviews and proficiency tests. Background questionnaires need to be completed as well
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
E ASIAN 214 Second Semester Heritage Chinese Credits: 6
This course emphasizes reading and writing skills. Students will acquire a wide range of vocabulary, grammatical points and sentence patterns from a variety of readings about Chinese culture. They will also learn how to write compositions about the covered topics. Prereq: E Asian 113
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 235 Genres of Asian Religious Writing Credits: 3
Writing intensive course based on the conventions in which Asian writers have expressed religious ideas. Readings introduce major Asian religious traditions and expressive genres. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr
General Education: COM B  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring

E ASIAN 253 Introduction to Japanese Culture and Civilization Credits: 3
An introduction to the culture, life-styles and thought of the Japanese people, with frequent reference to their history, literature and art. Prereq: Open to Fr & all stdts
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 267 Asian Religions in Global Perspective Credits: 3
Comparative and thematic introduction to diverse Asian religious traditions, ideas and communities, and their relevance to human societies of the past and present. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E ASIAN 277 Kendo: Integration of Martial Arts and Liberal Arts Credits: 2
Kendo practice (martial art) supplemented by lecture describing its historical roots and philosophical background.
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E ASIAN 299 Directed Study Credits: 1 - 3
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E ASIAN 300 Humanities Topics in East Asian Studies Credits: 1 - 3
Interdisciplinary approaches to specific humanities topics in East Asian studies. Topics may include comparative analysis of a theme across the countries in the East Asian region or focus on a theme within a single country. Prereq: Open to Fr with cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E ASIAN 301 Fifth Semester Chinese Credits: 4
Selections principally from modern Chinese literature and material in Chinese social studies, to expose students to reading a variety of styles. Classes conducted in Chinese. Three hours lecture, two hours discussion. Prereq: E Asian 202
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 302 Sixth Semester Chinese Credits: 4
Continuation of 301. Prereq: E Asian 301
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 303 Fifth Semester Japanese Credits: 4
Further practice in reading and writing. Extensive as well as intensive readings in contemporary texts. At least 1,000 more characters introduced. Videotape material also used. Conducted in Japanese. Five hours weekly. Prereq: E Asian 204 or 328 or satisfactory placement test scores
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 304 Sixth Semester Japanese Credits: 4
Continuation of 303. Prereq: E Asian 303 or satisfactory placement test scores
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
E ASIAN 308 Introduction to Buddhism Credits: 3 - 4
The basic thought, practices and history of Buddhism, including selflessness and relativity, practices of meditation, merit-making and compassion from both local and translocal perspectives. Includes a discussion of Buddhism as a contemporary, North American religion. Prereq: Open to Freshmen
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

E ASIAN 311 First Semester Chinese Credits: 5 - 6
Introduces the basic grammar along with 900 Chinese characters of standard spoken Chinese. Prereq: Grad st
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 312 Second Semester Chinese Credits: 5 - 6
Continuation of 311. Prereq: E Asian 311 or satisfactory placement test scores, & Grad st
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 317 Third Semester Chinese Credits: 5 - 6
Continuation of first year. Prereq: E Asian 312 or satisfactory placement test scores, & Grad st
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

E ASIAN 318 Fourth Semester Chinese Credits: 5 - 6
Continuation of 317. Prereq: E Asian 317 or satisfactory placement test scores, & Grad st
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

E ASIAN 319 First Semester Japanese Credits: 5 - 6
The phonological system and the basic grammatical patterns of modern colloquial Japanese, along with Hiragana, Katakana, and approximately 300 Kanji. Eight hours weekly. Prereq: Graduate standing
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 320 Second Semester Japanese Credits: 5 - 6
Continuation of 319. Prereq: E Asian 319 or satisfactory placement test scores, & Grad st
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 321 First Year Classical Chinese Credits: 4
Introduction to literary Chinese; emphasis on basic grammar to develop reading ability. Selections from: Philosophical and historical texts, essays, fictions, T'ang poetry, Sung lyrics, Yuan songs, and Ming drama. Prereq: E Asian 202 or 318 or equiv
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 322 First Year Classical Chinese Credits: 4
Continuation of 321. Prereq: E Asian 321
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 323 First Year Classical Japanese Credits: 3
Introduction to the grammar of classical Japanese to develop reading ability. Specially annotated texts of such works as Hojoki and Oku No Hosomichi are the principal reading material. Prereq: E Asian 204 or cons inst
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 325 Elementary Korean Credits: 3
Essentials of modern spoken and written Korean. Prereq: Grad st
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 326 Elementary Korean Credits: 3
Continuation of E Asian 325. Prereq: E A 325 & Grad St
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 327 Third Semester Japanese Credits: 5 - 6
Further practice in speaking, reading, and writing. Approximately 500 more kanji introduced. Conducted in Japanese. Eight hours weekly. Prereq: E Asian 320 or satisfactory placement test scores, & Grad standing
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

E ASIAN 328 Fourth Semester Japanese Credits: 5 - 6
Continuation of 327. Prereq: E Asian 327 or satisfactory placement test scores, & Grad standing
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer
E ASIAN 330 Basic Technical Japanese I Credits: 3
Introduces the three types of Japanese writing and most grammar necessary for reading technical writing in the sciences. Prereq: Sr or Grad st
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 332 Basic Technical Japanese II Credits: 3
Completes the grammar necessary for reading technical writing in the sciences. Concludes with individual projects in specialized fields. Prereq: EPD/E Asian 330
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 333 Chinese Conversation Credits: 3
Introduces students to oral communication skills including verbal and nonverbal behavior in Mandarin Chinese. Student will acquire useful terms and phrases for daily conversations and professional reports, and learn how to converse and interact appropriately in varying real-life situations. Prereq: E Asian 201-202
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 335 Intermediate Japanese Conversation Credits: 3
For students who wish to concentrate on speaking. Videotape material also used. Two hours weekly. Prereq: E Asian 204
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 341 Classical Chinese for Non-Majors Credits: 4
Basic grammar and syntax of classical Chinese to develop reading ability. The texts include Meng-tzu, Lao-tzu, the I-Ching and other Confucian and Taoist works. Prereq: Cons inst
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 342 Classical Chinese for Non-Majors Credits: 4
Continuation of 341. Prereq: Cons inst
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 345 Third Semester Korean Credits: 3 - 4
Further practice in speaking, reading and writing Korean. Prereq: E Asian 326 or satisfactory placement test scores. 4 cr for Undergrads, 3 cr for Grads
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 346 Fourth Semester Korean Credits: 3 - 4
Continuation of East Asian 345. Prereq: E Asian 345 or satisfactory placement test scores. 4 cr for Undergrads, 3 cr for Grads
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 347 Fifth Semester Korean Credits: 3
Further practice in reading and writing. Extensive as well as intensive readings in contemporary texts. Videotape material also used. Conducted in Korean. Prereq: E Asian 346 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 348 Sixth Semester Korean Credits: 3
Continuation of E Asian 347. Further practice in reading and writing. Extensive as well as intensive readings in contemporary texts. Videotape material also used. Conducted in Korean. Prereq: E Asian 347 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 350 Introduction to Taoism Credits: 3 - 4
A study of the writings attributed to Lao-tzu and Chuang-tzu and their concepts, and the history and various aspects of religious Taoism. Consideration is given to Taoist influences on literature. Undergraduate majors register for 4 cr; non-majors and graduate majors register for 3 cr. Prereq: So st; Undergrad majors register for 4 cr, Undergrad non-majors and Grad stdts register for 3 cr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 351 Survey of Chinese Literature Credits: 3
A critical introduction to the literature of China throughout the ages. Works include poetry, fiction and drama. Each student will be required to do one independent project, using Chinese language sources, if appropriate. This course may be taken independently from 352. Prereq: One yr of Chinese or equiv
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
E ASIAN  352 Survey of Chinese Literature  Credits: 3
Continuation of E Asian 351. Each student will be required to do one independent project using Chinese language sources if appropriate. The two semesters may be taken independently. Prereq: One yr of Chinese or equiv
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN  353 Survey of Japanese Literature  Credits: 3
Historical introduction to the important literary works of Japan. This course will cover the classical period, from the eighth through the mid-nineteenth century. Each student will be required to do one independent project using Japanese language sources if appropriate. Prereq: One yr of Japanese or equiv
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN  354 Survey of Japanese Literature  Credits: 3
Covers Japanese literature from the late nineteenth through the present century, and may be taken independently of E Asian 353. Each student will be required to do one independent project using Japanese language sources if appropriate. Prereq: One yr of Japanese or equiv
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN  356 Chinese Painting  Credits: 3 - 4
Meets with Art History 371. See Art History 371 for information. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN  358 Language in Japanese Society  Credits: 3
Exploration of dynamic relationships between the language and the social structure in Japan. Study of films, TV programs, and conversations as well as research articles. Basic knowledge of Japanese is assumed, but the instruction is in English. Prereq: E Asian 104 or 320 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E ASIAN  361 Masterworks of Japanese Literature: The Tale of Genji  Credits: 3
Explores the themes, structure, and reception history of Japan's The Tale of Genji (ca. 1008). Primary readings done in English. Japanese majors required to use Japanese secondary sources as appropriate. Prereq: So st
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN  363 Introduction to Confucianism  Credits: 3
The development of Confucianism in pre-Buddhist China emphasizing interactions with competing viewpoints. Particular attention to issues of morality and human nature, stressing the roots of Confucianism in more general theories of value. All readings in translation. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN  367 Japanese Poetic Tradition  Credits: 3 - 4
An introduction to the major types of Japanese poetry, ancient and modern. Although some attention to historical context is given, the emphasis is on critical reading and appreciation of Japanese poetry in translation. To qualify for four credits, students must complete a project based on their reading of Japanese poetry in the original language or of scholarly work on the subject in Japanese. Prereq: Jr st; Undergrad majors, 4 cr; non-major Undergrads & Grads, 3 cr
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN  368 Topics in Japanese Professional Communication  Credits: 1 - 3
Further development of communication skills in Japanese. Prior registration, students must consult with the instructor to determine a specific academic or professional area in which they plan to develop their proficiency. Prereq: E Asian 204 or cons inst. Recommended only to those who have received B or above in E Asian 204, or those who have obtained the sufficient level of proficiency to undertake the required assignments that involve writing and presenting multiple paragraph length reports on academic or professional topics
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E ASIAN  371 Topics in Chinese Literature  Credits: 2 - 3
Development of a particular theme, period, or genre in Chinese literature. Possible topics: Love and friendship in Chinese literature; the role of nature in Chinese poetry; and conflict between individual freedom and duty to society in modern Chinese literature. Translations of literary merit serve as the principal texts, but students of Chinese are required to do some reading in the original. Open to Fr with cons inst. Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
E ASIAN 372 Topics in Chinese: Study Abroad Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad prgm
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E ASIAN 373 Topics in Japanese: Study Abroad Credits: 1 - 6
A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad prgm
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E ASIAN 374 Intermediate Technical Japanese I Credits: 3
Fundamentals of Japanese grammar and the most frequent 300 Kanji in the physical sciences; reading, comprehending and translating Japanese scientific texts. Prereq: E Asian 203 or cons inst. Does not satisfy L&S language or major requirement
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 375 Intermediate Technical Japanese II Credits: 3
Continuation of 374; development of a Kanji frequency list and translation of a technical article. Prereq: EPD/E Asian 374 or cons inst. Does not satisfy L&S language or major requirement
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 376 Manga. Credits: 3
Surveys the manga (Japanese comicbook) from its precursors in premodern woodblock-printed booklets to its contemporary manifestations in subgenres like shonen, gekiga, mecha, and shojo. Draws upon critical writings on visual culture, literature, and visual-verbal narrative. Prereq: E Asian 104 or cons inst  
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 377 Business Japanese Communication Credits: 3
Improvement of oral and written communication skills that are specific to business contexts. Review of essential grammar and honorific expressions for proper styles of communication. Development of the understanding of cultural and geographical factors that influence business practices in Japan. Prereq: E Asian 203-204 or equiv prev lang training (consult instr)  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E ASIAN 378 Anime Credits: 3
Surveys anime (Japanese animation) from 1930s shorts through contemporary feature-length, experimental, and televised serial-form productions. Draws on critical writings on postmodernism, digital cinema, and visual culture. Some Japanese language ability is required. Prereq: E Asian 104, equiv, or cons inst  
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 379 Business Chinese Credits: 3
Introduces learners of Chinese to the culture, commerce, and etiquette in the Chinese society. Students will acquire a working knowledge of the vocabulary and expressions that are essential for business transactions. They will also learn culturally applicable business strategies and understand Chinese people’s expectations, concerns and needs. Prereq: 2 yrs Chinese or equiv  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 401 Seventh Semester Chinese Credits: 3
Extensive readings in advanced general and specialized texts in contemporary Chinese, and discussion on the content of the reading materials. Videotape materials also used. Conducted in Chinese. Three hours weekly. Prereq: E Asian 302 or satisfactory placement test scores  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 402 Eighth Semester Chinese Credits: 3
Continuation of E Asian 401. Prereq: E Asian 401 or satisfactory placement test scores  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 403 Seventh Semester Japanese Credits: 3
Extensive readings in advanced general and specialized texts in contemporary Japanese, and discussion on the content of the reading materials. Videotape materials also used. Conducted in Japanese. Three hours weekly. Prereq: E Asian 304 or satisfactory placement test scores  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
E ASIAN 404 Eighth Semester Japanese Credits: 3
Continuation of 403. Prereq: E Asian 403 or satisfactory placement test scores
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 405 Seventh Semester Korean Credits: 3
Extensive readings in advanced general and specialized texts in Korean, and discussion on the content of the reading materials. Videotape material also used. Conducted in Korean. Prereq: E Asian 348 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 406 Eighth Semester Korean Credits: 3
Continuation of E Asian 405. Extensive readings in advanced general and specialized texts in Korean, and discussion on the content of the reading materials. Videotape material also used. Conducted in Korean. Prereq: E Asian 405 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 431 Introduction to Chinese Linguistics Credits: 3
Phonology, morphology and syntax of the modern standard colloquial language, including historical, philological, and dialectal aspects. Prereq: E Asian 202 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 432 Introduction to Chinese Linguistics Credits: 3
Continuation of E Asian 431. Prereq: E Asian 431 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 433 Topics in East Asian Visual Cultures Credits: 3
Topics in the study of the visual cultures of East Asia from antiquity to the present. Focuses on illustrative texts and genres, major historiographic, theoretical, and methodological issues, and the technologies of vision and visuality in China, Japan, and Korea. Prereq: Jr or Sr st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

E ASIAN 434 Introduction to Japanese Linguistics Credits: 3
Phonology, morphology and syntax of the modern standard colloquial Japanese, including historical and dialectal aspects. Prereq: Linguis 301 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 466 Buddhist Thought Credits: 3
Survey of the fundamental trends in Buddhist thought through the works of major philosophers. Themes include the concept of "selflessness" and concomitant theories of essencelessness, perception, language and rationality. Previous study of Buddhism or philosophy is strongly recommended. Prereq: So st or cons inst. Prev study of Buddhism or philos strongly recommended.
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

E ASIAN 501 Fifth-year Chinese Credits: 3
Continuation of E Asian 401-402 (seventh and eighth semester Chinese), with emphasis on reading with speed a variety of Chinese texts with discussion in Chinese. Prereq: E Asian 402 or equiv; course repeatable only with cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E ASIAN 520 Popular Culture and Film in Twentieth-Century China Credits: 3
A historical narrative of popular culture from the turn of the century to contemporary China, Taiwan, and Hong Kong. Offered in a seminar format. Prereq: Jr st & cons inst; no knowledge of Chinese required
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 563 Readings in Modern Japanese Literature Credits: 3
Extensive readings in modern Japanese literature and discussion of literary content. Prereq: E Asian 404
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

E ASIAN 564 Readings in Modern Japanese Literature Credits: 3
Continuation of 563. Prereq: E Asian 563
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
E ASIAN 571 Readings in Classical Chinese Literature Credits: 3
Extensive readings in classical Chinese literature with one semester devoted principally to poetry and the other to prose. Prereq: E Asian 422
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 573 Readings in Classical Japanese Literature Credits: 3
A close reading and translation of selected texts in Classical Japanese literature. Includes such works as Genji Monogatari, plays of the Noh Theatre, and Saikaku. Prereq: E Asian 404 or equiv
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 574 Readings in Classical Japanese Literature Credits: 3
Continuation of 573. Prereq: E Asian 573 or equiv
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 601 Japanese for Business and Industry Credits: 3 - 4
Business language and commercial practices in contemporary Japanese society. Prereq: EPD/E Asian 375 or E Asian 304 or consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 602 Japanese for Politics and Government Credits: 3 - 4
Language and patterns of expression used in political discourse and policymaking in Japan. Prereq: EPD/E Asian 375 or E Asian 304 or consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 622 Teaching of Chinese Credits: 3
Methods of teaching Chinese as a second language including comparative study of Chinese and English structure, introduction to teaching techniques. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 623 Teaching of Japanese as a Foreign Language Credits: 3
Methods of foreign language teaching in general and Japanese language teaching in particular; with emphasis on special problems in teaching Japanese to English-speaking students. Prereq: Current enrollment in the Grad program in Japanese, or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

E ASIAN 631 History of the Chinese Language Credits: 3
Introduction to Chinese historical linguistics, including the sound systems of the Shih-ching, T'ang poems, and Yuan songs, and their historical relations to the sounds of modern Mandarin, and syntactic interaction between classical and vernacular Chinese. Prereq: Cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 632 History of the Chinese Language Credits: 3
Continuation of 631. Prereq: Cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 651 History of Chinese Literature Credits: 3
First semester: period up to and including the T'ang dynasty; Second semester: period since the T'ang. Prereq: E Asian 422 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 652 History of Chinese Literature Credits: 3
Continuation of 651. Prereq: E Asian 651 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 661 History of Chinese Thought, Part 1 Credits: 3
The first half of a two-course sequence promoting a familiarity with the fundamentals of Chinese thought, philosophical and religious. The focus is on the pre-Qin period, paying particular attention to competing theories of value. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall
E ASIAN 662 History of Chinese Thought, Part 2 Credits: 3
The second half of a two-course sequence promoting a familiarity with the fundamentals of Chinese thought, philosophical and religious. The focus is on the dynastic period, from Qin Han through Qing, emphasizing the cross-fertilization between traditions and the role of commentary. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 671 Literary Studies in Chinese Drama Credits: 3
Intensive study of selected dramatic texts. Prereq: E Asian 302 or equiv
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 672 Literary Studies in Chinese Fiction Credits: 3
Intensive study of selected short story and novel texts. Prereq: E Asian 462 or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 691 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E ASIAN 692 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E ASIAN 698 Directed Study Credits: 2 - 3
Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 699 Directed Study Credits: 2 - 3
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E ASIAN 701 Proseminar in Chinese Literature Credits: 3
Acquaints entering graduate students with the history of the study of Chinese literature in the West, with the basic reference tools and methodologies, and with the various critical approaches to Chinese literature. Prereq: BA in Chinese or equiv
L&S Level: Advanced Typically Offered: Occasionally

E ASIAN 741 Studies in Chinese Syntax and Morphology Credits: 3
Syntax and morphology of a selected corpus of Chinese texts. May be repeated. Prereq: E Asian 631-632
Typically Offered: Occasionally

E ASIAN 761 Studies in Chinese Historical Texts Credits: 3
Selected readings from various histories prior to the twentieth century. Prereq: E Asian 572 or equiv
Typically Offered: Occasionally

E ASIAN 762 Studies in Chinese Philosophical Texts Credits: 3
Selected texts, emphasis on pre-Han period. Prereq: E Asian 572 or equiv
Typically Offered: Occasionally

E ASIAN 763 Studies in Japanese Literature Credits: 3
One of the general fields such as theater, fiction, etc., studied intensively. May be repeated. Prereq: E Asian 564 & 574 or equiv & cons inst
Typically Offered: Occasionally
E ASIAN 775 Studies in Japanese Linguistics Credits: 3
One of the general fields such as phonology, morphology, syntax, dialectology, etc. May be repeated. Prereq: E Asian 434 or equiv & cons inst
Typically Offered: Occasionally

E ASIAN 799 Reading for Research Credits: 1 - 3
For students in the department who have passed the qualifying exam and who are reading for their preliminary exam. (May be repeated.) Prereq: Cons inst
Typically Offered: Occasionally

E ASIAN 833 Topics in East Asian Visual Cultures Credits: 3
Topics in the study of the visual cultures of East Asia from antiquity to the present. Focuses on illustrative texts and genres, major historiographic, theoretical, and methodological issues, and the technologies of vision and visuality in China, Japan, and Korea. Prereq: Grad st or cons inst
Typically Offered: Spring

E ASIAN 932 Seminar in Chinese Linguistics Credits: 2 - 3
Rotating subjects; a student may enroll as many times as needed. Prereq: Cons inst
Typically Offered: Occasionally

E ASIAN 951 Seminar in Chinese Literature Credits: 3
Rotating subjects; a student may enroll as many times as needed. Prereq: Cons inst
Typically Offered: Occasionally

E ASIAN 971 Seminar in Chinese Thought Credits: 3
Rotating subjects relating to Chinese philosophies and religions. Prereq: Cons inst
Typically Offered: Occasionally

E ASIAN 990 Thesis Research Credits: 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally

E ASIAN 999 Independent Research Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

EAST ASIAN AREA STUDIES

E A STDS 103 Introduction to East Asian History: China Credits: 3 - 4
Survey of major developments in Chinese history from 1500 B.C. to the founding of the Communist state in 1949. Emphasis on patterns and themes; equal time devoted to the classical and traditional period and the modern era. Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E A STDS 104 Introduction to East Asian History: Japan Credits: 3 - 4
Survey of major cultural, social, political and economic developments in Japanese history from ancient to recent times. Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E A STDS 255 Introduction to East Asian Civilizations Credits: 3 - 4
Multidisciplinary and historical perspectives on the East Asian civilizations of China, Japan, Korea, Tibet and Mongolia from prehistory to the present, including developments in philosophy, economy, governance, social structure, kinship, geography, etc. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall
E A STDS 276 Chinese Migrations since 1500 Credits: 3 - 4
Introduces the comparative history of Chinese migrations to the U.S. and world. Examines patterns of movement; imagined communities through cultural identity, citizenship, queerness, heritage tourism, studying abroad, and transnational adoption; as well as sites of cultural production such as food, literature, architecture, and cinema.
Prereq: Sophomore standing or consent of instructor
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

E A STDS 299 Directed Study Credits: 1 - 3
Prereq: Open to Fr. Graded on a lettered basis; requires cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E A STDS 300 Humanities Topics in East Asian Studies Credits: 1 - 3
Interdisciplinary approaches to specific humanities topics in East Asian studies. Topics may include comparative analysis of a theme across the countries in the East Asian region or focus on a theme within a single country.
Prereq: Open to Fr with cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E A STDS 301 Social Studies Topics in East Asian Studies Credits: 1 - 3
Interdisciplinary approaches to specific social sciences topics in East Asian studies. Topics may include comparative analysis of a theme across the countries in the East Asian region or focus on a theme within a single country.
Prereq: Open to Fr with cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E A STDS 337 Social and Intellectual History of China, 589 AD-1919 Credits: 3 - 4
The culture of the literati in the T'ang; major trends of Neo-Confucianism during the Sung and Ming; the Confucian response to the West in the nineteenth century; the emergence of the modern Chinese intelligentsia and iconoclasm in the early May Fourth period.
Prereq: Sophomore standing or Hist 103
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

E A STDS 341 History of Modern China, 1800-1949 Credits: 3 - 4
The disintegration of traditional Chinese society under the impact of Western imperialism, the rise of modern Chinese nationalism, and the emergence of modern revolutionary movements and ideologies.
Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E A STDS 342 History of the Peoples Republic of China, 1949 to the Present Credits: 3 - 4
The social, economic and political transformation of China under Communism; the role of ideology in contemporary Chinese historical development; the nature of that historical development in the comparative perspective of other post-revolutionary histories.
Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

E A STDS 363 China and World War II in Asia Credits: 3 - 4
This course is intended to help students understand World War II from the perspective of Asia. The focus is not only on the American and Japanese roles in the war but also on lesser, often overlooked participants such as China, Korea, and Southeast Asia. The course will focus not only on the diplomatic, political, and military situation of wartime Asia, but also on perceptions and experiences of the war from those most heavily affected by it: those experiencing it on the ground. Understanding this war is critical for helping us understand contemporary Asia. The foundations of the Cold War and the post-Cold War world that we live in today were forged on battlefields in mainland China, Burma, L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

E A STDS 454 Samurai: History and Image Credits: 3 - 4
Japanese warriors, their ideals, and their images from the tenth century to the present.
Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
E A STDS 456 Pearl Harbor & Hiroshima: Japan, the US & The Crisis in Asia Credits: 3 - 4
Events leading to the Pearl Harbor attack, the conduct of World War II in the Pacific, the nature of the wartime
Japanese state and effects of the war on Japanese society, the dropping of the atomic bombs, and Japan's
decision to surrender. The war as an epoch in Japanese history. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

E A STDS 681 Senior Honors Thesis Credits: 3
Senior honors thesis in East Asian area studies. Prereq: Consent of faculty adviser
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E A STDS 682 Senior Honors Thesis Credits: 3
Senior honors thesis in East Asian area studies. Prereq: E A Stds 681, consent of faculty adviser
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E A STDS 691 Senior Thesis Credits: 3
Individual research guided by a faculty mentor. A requirement for honors credit. Prereq: Sr st. E A Stds major
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

E A STDS 692 Senior Thesis Credits: 3
Individual research guided by a faculty mentor. A requirement for honors credit. Prereq: Sr st. E A Stds major
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

E A STDS 698 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st & cons inst. Graded on a Cr/N basis.
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

E A STDS 699 Directed Study Credits: 2 - 3
Prereq: Jr or St st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ECON 100 Economic Approach to Current Issues Credits: 3 - 4
Emphasizes current economic issues and illustrates how the economist's perspective helps to understand them.
The objective is to enhance economic literacy by presenting the basic tools of the discipline and applying them to
selected issues for which policy decisions have important consequences. Prereq: Math 101 (or suitable math
placement score) or satisfaction of Quantitative Reasoning A. Not open to students that have completed or are
currently enrolled in Econ 101, Econ 102 or Econ 111
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ECON 101 Principles of Microeconomics Credits: 4
Economic problems of individuals, firms and industries with emphasis on value, price, and distribution of income.
Must be taken before 102. Prereq: Successful completion of or exemption from Quantitative Reasoning A
requirement. Open to Fr. No honors avail
General Education: OR-B L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

ECON 102 Principles of Macroeconomics Credits: 3 - 4
Macroeconomic measurement and models of aggregate demand and supply; fiscal and monetary policy for
unemployment, inflation, and growth. Prereq: Econ 101 or AAE 215. Open to Fr. No honors avail
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ECON 109 Study Abroad in Introductory Economics Credits: 1 - 4
Provides an equivalency for introductory level economics courses taken on UW-Madison study abroad programs.
Prereq: Enrollment in a UW-Madison study abroad prog
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
ECON 111 Principles of Economics-Accelerated Treatment Credits: 4
Integrated treatment of macroeconomics and microeconomics (see Econ 101 and 102). Accelerated approach to economics training, especially for Econ Opt. B majors. Prereq: Placement into Math 221 or higher or equivalent math proficiency. Not open to students that have taken Econ 101 or Econ 102
General Education: QR-B  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 228 Internship Economics Credits: 1
Internship in economics related field. Prereq: Declared Economics Major with GPA of 2.5 or higher in major. Completion of at least 4 economics classes at UW-Madison. Completion of at least one intermediate theory class (Econ 301 or 311, Econ 302 or 312). Approval/authorization to registrar: To be granted by the Undergraduate Committee after review of offer letter and proposal form.
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 299 Directed Study Credits: 1 - 3
Prereq: Open to Fr and So only
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 300 Introduction to Finance Credits: 3
Concepts and techniques in corporate finance and investments. Topics include the financial environment, securities markets, financial markets, financial statements and analysis, working capital management, capital budgeting, cost of capital, dividend policy, asset valuation, investments, decision making under uncertainty, mergers, options, and futures. Prereq: So, Jr or Sr st; Econ 101 or AAE 215; Acct IS 100 or 300; Gen Bus 303 or equiv or con reg
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 301 Intermediate Microeconomic Theory Credits: 4
Contemporary theory of consumption, production, pricing and resource allocation. Prereq: Any two intro econ courses and one semester calc (Math 221 or 211; Math 221 recommended)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 302 Intermediate Macroeconomic Theory Credits: 4
Principles and theories of national income determination, analysis of savings, consumption, investment and other aggregates in the national and international economy and relation to employment, inflation and stabilization. Prereq: Any two intro econ courses and one semester calc (Math 221 or 211; Math 221 recommended)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 305 Development of Economic Thought Credits: 3 - 4
Development of economic thought from the middle ages to the present; emphasis on major schools of thought including Classical, Marxian, Neo-Classical, and Keynesian schools. Prereq: Any two intro econ courses or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECON 306 The Real Estate Process Credits: 3
Introductory survey course. Decision-making processes for the manufacture, marketing, management and financing of real estate space. Survey of institutional context, economics of urbanization, historical pattern and structure of city growth, and public policy issues regarding urban environment and business management. Prereq: So, Jr, or Sr st; Econ 101
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 309 Study Abroad in Intermediate Economics Credits: 1 - 4
Provides an equivalency for intermediate level economics courses taken on UW-Madison study abroad programs. Prereq: Enrollment in a UW-Madison study abroad prog. Completion of an intro microecon crse & an intro macroecon crse
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ECON 310 Statistics: Measurement in Economics Credits: 4
Introduction to analysis of economic data. The techniques of descriptive statistics and statistical inference (hypothesis testing and estimation) as directed toward application in economic research. Prereq: One intro econ course & Math 221 or 211; students with previous stat course must have consent of instructor
General Education: QR-B L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 311 Intermediate Microeconomic Theory - Advanced Treatment Credits: 3
A mathematical approach to the theory of consumption, production, pricing and resource allocation. Prereq: Math 222, Econ 101 & 102 or Econ 111; or cons inst. Not open to students who have taken Econ 301
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ECON 312 Intermediate Macroeconomic Theory - Advanced Treatment Credits: 3
A mathematical approach to the principles and theories of national income determination, analysis of savings, consumption, investment and other aggregates in the national and international economy and relation to employment, inflation, and stabilization. Prereq: Math 222, Econ 101 & 102 or Econ 111; or cons inst. Not open to stdts who have taken Econ 302
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ECON 320 Investment Theory Credits: 3
Structure and functioning of securities markets; principles of portfolio construction; models of the tradeoff between risk and expected return. Prereq: Sophomore, Junior or Senior standing; Math 213 or 222; Finance/Econ 300; Gen Bus 304 or equivalent or concurrent registration
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 330 Money and Banking Credits: 4
Monetary economics; the role of money in the determination of output, prices and interest rates; commercial and central banking, monetary policy, the international monetary system. Prereq: Econ 101 & 102, or 111 or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 343 Environmental Economics Credits: 3 - 4
Microeconomic principles underlying the use of natural resources such as air, water, forests, fisheries, minerals and energy. These principles are applied in the examination of pollution control, preservation vs. development, deforestation, and other environmental issues. Prereq: AAE 215, Econ 101 or equivalent, or consent of instructor
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ECON 364 Survey of International Economics Credits: 3 - 4
Contemporary theory of international trade and finance applied to current economic events. Not recommended for economics majors. Not open to students who have taken Econ 464 or Econ 301 (or 311). Prereq: Not open to students who have taken Economics 464.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ECON 390 Contemporary Economic Issues Credits: 3
Topics vary; number used for experimental courses. Prereq: Prerequisites vary by topic
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ECON 409 Study Abroad in Advanced Economics Credits: 1 - 4
Provides an equivalency for advanced level economics courses taken on UW-Madison study abroad programs for which there is no exact UW-Madison equivalent. Course must be of equal rigor to those offered on campus. To receive this equivalent, departmental pre-approval is required. Prereq: Enrollment in a UW-Madison study abroad prog. Completion of an intermed microecon crse and/or intermed macroecon crse
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ECON 410 Introductory Econometrics Credits: 4
Statistical methods used in applied economic research. Topics include: survey methods and data sources; multiple regression and analysis of variance; econometric estimation; forecasting and policy applications. Prereq: Econ 310 & Math 221. Undergrads have enrollment priority
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ECON 420 Urban and Regional Economics Credits: 3
Nature and structure of urban economies; location of economic activity; economic analysis in an urban framework; principles of urban economic development, housing, transportation, poverty and unemployment and municipal finance. Forecasting of economic activity using census and socioeconomic data. Prereq: Econ 101
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ECON 421 Economic Decision Analysis Credits: 4
Managerial oriented, applied presentation of microeconomic theory. Quantitative emphasis with extensive homework use of spreadsheets and written executive summaries of applied economic analyses. Applications on natural resources and agricultural markets. Prereq: Econ 301 & Stat 301, or equiv
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ECON 435 The Financial System Credits: 3
Continuation of 330. Banking, credit markets and financial institutions, monetary and debt management policies; relation of national monetary and credit institutions to the international system. Prereq: Econ 301, 302, 330
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ECON 440 Urban and Regional Economics Credits: 3
Economic theories of the nature and function of cities with emphasis on classical location theory. Theory of urban and regional planning in a market economy. Examination of selected problems, e.g.: housing, land-use and transportation; urban economic history; regional development; fiscal federalism. Prereq: Econ 301 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ECON 441 Analytical Public Finance Credits: 3 - 4
Analyzes the problems of the public sector in dealing with domestic issues of education, urban areas, welfare, natural resources, and the environment; provides students with opportunity to apply the tools of economic analysis that are pertinent to domestic public sector problems. Prereq: Econ 301 or consent of instructor; may not be taken for credit by stdts who have already taken Econ 340
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 442 Macroeconomic Policy Credits: 3 - 4
This course will address current issues in modern macroeconomic policymaking. Topics include: fiscal and monetary policy, financial and sovereign debt crisis, and financial regulation. Prereq: Econ 301 (or 311), Econ 302 (or 312) and Econ 310 or consent of the instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 448 Human Resources and Economic Growth Credits: 3 - 4
Theoretical and empirical analysis of public and private investment in people, emphasizing the contribution to productivity of education, training, health, and mobility. Prereq: Econ 301 (or 311) or consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ECON 449 Government and Natural Resources Credits: 3 - 4
Problems of public policy and administration for development and use of natural resources. Prereq: Jr st
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Summer

ECON 450 Wages and the Labor Market Credits: 3 - 4
Economic and institutional forces which determine labor supply and demand; wage theories, wages in the economy, the labor force, unemployment, wages, labor mobility, functioning of labor markets. Prereq: Econ 301
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 451 The Economic Approach to Human Behavior Credits: 3
The economic analysis of "non-economic" topics such as the family, crime, politics and religion. Prereq: Econ 301
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ECON 455 Behavioral Economics Credits: 3 - 4
Empirical evidence documenting departures in human decision making from rational norms, and alternative theoretical approaches to explaining this behavior grounded based upon psychological enrichments of standard rational actor model. Topics include paradox of choice, loss aversion, time inconsistent preferences, and social preferences. Prereq: Econ 301 (or 311) and Econ 310 or consent of the instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ECON 458 Industrial Structure and Competitive Strategy Credits: 3
Analysis of competition among firms and its effect on industrial structure. Theoretical models and case studies are used. Topics include: entry barriers, price competition dynamics, entry and exit strategies, and competitive tactics such as product differentiation, advertising, and technological change. Prereq: Econ 301
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 460 Economic Forecasting Credits: 3 - 4
Introduction to econometric time series analysis, forecasting methods, and forecast evaluation. The course will cover theoretical, methodological and applied topics, and much of the work will be hands-on data analysis. Prereq: Econ 410 or concurrent enrollment, or consent of the instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 462 Latin American Economic Development Credits: 3
A historico-institutional analysis of development problems in the principal Latin American countries, with attention to differentiation of national growth patterns and alternative development strategies. Prereq: Econ 102 or 111 and Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ECON 464 International Trade and Finance Credits: 3 - 4
Contemporary theory of international trade and finance developed and applied to current problems in international economic relations. Prereq: Econ 301 (or 311) and 302 (or 312), or consent of instructor. Not open to students who have taken 364
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 465 The American Economy to 1865 Credits: 3 - 4
Survey of the forces underlying American economic development and the distribution of income; rise of regional economies; origins of manufacturing; effects of slavery; influence of government and politics on growth. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECON 466 The American Economy Since 1865 Credits: 3 - 4
Emergence of the large corporation; growth and instability since the mid-nineteenth century; increasing government participation in the economy; the impact of war, depression, discrimination, and international responsibilities. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECON 467 International Industrial Organizations Credits: 3 - 4
Study of competition among firms in an international environment (theoretical analysis and policy applications). Topics include: strategic trade, trade agreements and intellectual property rights issues, R&D and technology transfers, multinational firms. Prereq: Econ 301 or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 468 Industrial Organization and Imperfect Competition Credits: 3 - 4
An overview of the theory of industrial organization, including the study of oligopolistic behavior, monopolistic competition, product differentiation and the dynamic behavior of competitive industries under uncertainty. Prereq: Econ 301 or 311 and Math 221 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 473 Economic Growth and Development in Southeast Asia Credits: 3
Evaluates economic development strategies in Southeast Asia and their implications for growth, distribution and environment. Students learn trade and development theory as well as specific knowledge of Southeast Asian economic development. Prereq: Two crses in AAE and/or Econ, or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ECON 474 Economic Problems of Developing Areas Credits: 3
Analyzes aggregate growth, income distribution and poverty in lower income economies. Uses microeconomics of imperfect labor, capital and insurance markets to explore why some individuals advance economically as their economies grow and others fall behind. Considers implications of aggregate and micro analysis for national and international economic policy. Prereq: Sr st and two crses in econ
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
**ECON 475 Economics of Growth** Credits: 3 - 4
Theoretical analysis of issues in growth and development. Models will be motivated by country experiences. Topics include: factors affecting saving, investment and cross-country differentials on per capita income; the role of government institutions, market regulation, technology and trade. Prereq: Econ 301 or 311, Econ 302 or 312 and Math 221 with a grade of B or higher, or cons inst
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

**ECON 477 Agricultural and Economic Development in Africa** Credits: 3
Composition, organization, and techniques of agricultural production; economic change and development of agriculture, economic policies, special problems of developing African agriculture. Prereq: Two crses in AAE and/or Econ, or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

**ECON 502 Economics of Transportation** Credits: 3
Influence of transport costs on economic development, industrial location and market penetration; economic characteristics of carriers; pricing policies and practices in transport; interrelationship of public policy issues and decisions by suppliers and users of transportation. Prereq: Econ 101
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

**ECON 503 Markets with Frictions** Credits: 3 - 4
Search theory provides framework for understanding markets; is used to study questions in monetary, public, financial economics. This course will develop theoretical tools used to introduce frictions in formal models; will address the role of frictions in several applied scenarios. Prereq: Grade of B or higher in Econ 301 (or Econ 311), Econ 302 (or Econ 312) and Math 221
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**ECON 508 Wealth and Income** Credits: 3
Origins of inequality in income and wealth -- bequests, human capital, property division, productivity, and demographic change. Primary focus on the United States, with some international comparisons. Measurement of redistribution effected by social insurance, inflation, and tax-transfer systems. Empirical, oriented towards policy analysis and measurement. Prereq: A course in statistics & Econ 301 or 311 or cons inst
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

**ECON 521 Game Theory and Economic Analysis** Credits: 3 - 4
The study of multi-agent, interactive decision problems, with emphasis on questions of coordination, cooperation and conflict. Applications include relations between countries, competition between firms, bargaining between unions and firms, and contests between political candidates. Prereq: Econ 301, Math 222
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**ECON 522 Law and Economics** Credits: 3 - 4
Economic analysis of legal rules and institutions with emphasis on how different areas of law influence individual incentives. Specific topics include: (1) property, (2) contracts, (3) torts, (4) legal procedure and (5) criminal law. Prereq: Econ 301 or consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**ECON 524 Philosophy and Economics** Credits: 3
Economics examined from the viewpoint of the philosophy of science. Normative and positive aspects of economic theory. Deterministic and statistical explanation. Arrow impossibility theorem. Radical economics. Team taught by a philosopher and an economist. Prereq: Jr st and at least 3 cr in econ or 3 cr in philos
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

**ECON 525 Economics of Education: Theory and Measurement** Credits: 3
Application of theoretical and empirical methods of economics to education policy. Emphasis in econometrics analysis and critical evaluation of empirical research. Writing intensive course. Prereq: Econ 301 or 311; Econ 410 or con reg; or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
ECON 526 Quantitative Methods in Agricultural and Applied Economics Credits: 4
Use of quantitative methods (mathematics, statistics, and optimization) to analyze problems faced by decision makers in natural resources and agriculture. Extensive homework requiring use of quantitative methods via spreadsheet tools to solve problems from an applied decision context. Prereq: Math 211, Econ 301, Stat 301, or equiv
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ECON 531 Natural Resource Economics Credits: 3
Economic concepts and tools relating to management and use of natural resources, including pricing principles, cost-benefit analysis, equity, externalities, economic rent, renewable and nonrenewable resources, and resource policy issues. Prereq: Econ 301 and Math 211, or equiv
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ECON 548 The Economics of Health Care Credits: 3 - 4
Analysis of the health care industry. Markets for hospitals and physicians' care, markets for health manpower, and the role of health insurance. Prereq: Econ 301, or Pub Affr 880 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ECON 567 Public Finance in Less Developed Countries Credits: 3
Potential and limitations of fiscal policy as a development instrument in low-income countries; tax harmonization in economic integration; case studies in tax reform; budgeting and planning. Prereq: Intro crse in econ thry, public finance or econ dev
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECON 580 Honors Tutorial in Research Project Design Credits: 3
Students will be required to criticize research by others, to draft a research proposal and to complete a project that requires original research. Prereq: Econ 301 or 311, Econ 302 or 312 and Econ 410
General Education: COM B  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ECON 581 Honors Thesis Credits: 3
Students will work on their honor thesis. Prereq: Econ 580
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 590 Tutorial in Research Project Design Credits: 3
Students will be required to draft a research proposal that is analogous to a NSF proposal or a Ph.D. prospectus and critique research proposals and existing undergraduate theses. They will also complete a project that requires original research incorporating one of the following: use of statistical software; simulation experiment using existing software; design and pretest a human subjects experiment; draft an interview instrument; or a comparable project. Prereq: Econ 301 or 311; Econ 302 or 312; Econ 410 or con reg; or cons inst
General Education: COM B  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ECON 606 Mathematical Economics II Credits: 3 - 4
Advanced mathematical topics and techniques used in economic analysis. Deterministic and Stochastic Control Theory emphasized. Prereq: Econ 605 or equiv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECON 623 Population Economics Credits: 3 - 4
Examination of economic determinants of population change and demographic behavior including household formation, marriage, child bearing and rearing, mortality (especially infant) and key forms of human capital investments including schooling and migration. Prereq: Econ 301 (or 311) and Econ 310 (or equiv); or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 641 Housing Economics and Policy Credits: 3
The economic principles underlying the dynamics of the housing market; filtering, neighborhood decline and abandonment gentrification, tenure choice, mortgage choice, prepayment, mobility, mortgage default, submarket identification, racial discrimination and segregation. Examination of governmental programs affecting the housing market and their objectives and impacts; public and subsidized housing, zoning and land use regulation, rent and price controls, property and income tax policy. Prereq: Real Est 420 or con reg or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
ECON 663 Population and Society Credits: 3
Social and economic determinants and consequences of contemporary and historical population trends in both developed and developing societies. Fertility, mortality, migration, population distribution, age structure, population growth.  Prereq:  Any one of the following: Soc 170, Soc 357, Soc 380, Econ 101, Econ 111, AAE 215; or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 664 Advanced International Trade Credits: 3
Policies relating to trade, tariffs, balance of payments, and aid programs, with special emphasis on recent developments and the role played by the United States.  Prereq:  Econ 464, or Econ 301 (or 311) and 364, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ECON 666 Issues in International Finance Credits: 3 - 4
Modern institutions, history, and controversies of international financial relations. Foreign exchange market, the Euro-currency banking system, and central bank intervention in both.  Prereq:  Econ 301 or 311, Econ 302 or 312, Econ 310 or equiv and Math 221; or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 671 Energy Economics Credits: 3
The method, application, and limitations of traditional economic approaches to the study of energy problems. Topics include microeconomic foundations of energy demand and supply; optimal pricing and allocation of energy resources; energy market structure, conduct, and performance; macro linkages of energy and the economy; and the economics of regulatory and other public policy approaches to the social control of energy.  Prereq:  (Senior standing and ECON 101 or AAE 215) or graduate standing
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ECON 681 Senior Honors Thesis Credits: 3
Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 682 Senior Honors Thesis Credits: 3
Continuation of 681  Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 691 Senior Thesis Credits: 1 - 3
For Econ majors not in the Honors Program.  Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 692 Senior Thesis Credits: 1 - 3
Continuation of 691  Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 698 Directed Study Credits: 1 - 4
Prereq:  Jr or Sr st; graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 699 Directed Study Credits: 1 - 4
Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ECON 700 Mathematics for Economists Credits: 3
Mathematical techniques used in economics analysis at a Master level. Topics include: proof techniques, optimization, introductory topology, functional analysis, linear algebra for microeconomists and differential equations.  Prereq:  3 semesters calculus (Math 234), linear algebra (Math 340) or consent of instructor
Typically Offered: Fall
ECON 701 Microeconomics I Credits: 3
First course in a two-semester sequence covering: consumer theory, producer theory, and markets under partial and general equilibrium, and with externalities or market power. The sequence will include an introduction to decision theory and game theory, and applications to auction theory and partially informed trade. Prereq: 3 semesters calculus (Math 234), linear algebra (Math 340) & Graduate standing, or consent of instructor
Typically Offered: Fall

ECON 702 Macroeconomics I Credits: 3
First master's level macroeconomics course. A mathematical approach to the study of aggregate output determination, including analysis of consumption, labor markets, economic growth, and business cycles. Analysis of fiscal and monetary policies and their interactions. Prereq: 3 semesters calculus (Math 234), linear algebra (Math 340), or consent of instructor
Typically Offered: Spring

ECON 703 Mathematical Economics I Credits: 3 - 4
A survey of mathematical techniques used in economic analysis. Linear algebra and optimization techniques are emphasized. Prereq: 2 semesters of adv calc, 1 semester of linear algebra, & Grad st, or cons inst
L&S Level: Intermediate/Advanced  Typically Offered: Fall

ECON 704 Econometrics I Credits: 3
Econometric methods, theory, and applications. Matrix algebra will be used. Topics include linear regression, least-squares estimation, inference, and hypothesis testing. Suitable for graduate (master's level) students. Prereq: semesters calculus (Math 234), linear algebra (Math 340), mathematical statistics or consent of instructor
Typically Offered: Fall

ECON 705 Econometrics II Credits: 3
Econometric methods, theory, and applications. Topics include instrumental variables, GMM, panel data, limited dependent variables, time series, and vector autoregressions. Prereq: Econ 704 or consent of instructor.
Typically Offered: Spring

ECON 706 Econometrics III Credits: 3
This course focuses on using econometric methods to address empirical questions, conduct empirical research, and write empirical papers in economics. Prereq: Econ 705 or consent of instructor
Typically Offered: Fall

ECON 707 Institutional Economics Credits: 3
Comparative analysis of neoclassical and institutional economics, with emphasis on economic epistemology, agency theory, transaction costs, firms and markets, property rights, externalities, welfare economics, efficiency, and rules of social choice. Prereq: AAE 635 or equiv
Typically Offered: Not Applicable

ECON 708 Microeconomics II Credits: 3
Second course in a two-semester sequence covering: consumer theory, producer theory, and markets under partial and general equilibrium, and with externalities or market power. The sequence will include an introduction to decision theory and game theory, and applications to auction theory and partially informed trade. Prereq: Econ 701 or consent of instructor
Typically Offered: Spring

ECON 709 Economic Statistics and Econometrics I Credits: 3 - 4
Probability distributions, statistical inference; multiple linear regression; introduction to econometric methods. Prereq: 2 semesters of adv calc, 1 semester of linear algebra, & Grad st, or cons inst
L&S Level: Advanced  Typically Offered: Fall

ECON 710 Economic Statistics and Econometrics II Credits: 3 - 4
Extensions of the linear regression model; introduction to multiple equation models. Prereq: Econ 709
L&S Level: Advanced  Typically Offered: Spring

ECON 711 Economic Theory-Microeconomics Sequence Credits: 3
First course in a two-semester sequence: theories of firms, consumers, and markets; or partial and general equilibria in market and centralized economies; topics in welfare economics. Prereq: 2 semesters of adv calc, 1 semester of lineal algebra, & Grad st, or cons inst
Typically Offered: Fall
ECON 712 Economic Theory-Macroeconomics Sequence Credits: 3
First course in a two semester sequence: commodity, money and labor markets, their components and general equilibrium; intertemporal optimization and growth theory. Prereq: 2 semesters of adv calc, 1 semester of lineal algebra, & Grad st, or cons inst
Typically Offered: Fall

ECON 713 Economic Theory: Microeconomics Sequence Credits: 3
Continuation of 711. Prereq: Econ 711
Typically Offered: Spring

ECON 714 Economic Theory; Macroeconomics Sequence Credits: 3
Continuation of 712. Prereq: Econ 712
Typically Offered: Spring

ECON 715 Econometric Methods Credits: 3
Statistical models and methods relevant to estimation and testing of economic relationships. Prereq: Econ 709, 710
Typically Offered: Fall

ECON 716 Econometric Methods Credits: 3
Continuation of 715 Prereq: Econ 715
Typically Offered: Occasionally

ECON 717 Applied Econometrics Credits: 3
Mathematical formulation and empirical implementation of economic theory. Prereq: Econ 715-716
Typically Offered: Occasionally

ECON 718 Topics in Applied Econometrics Credits: 3
Continuation of 717 Prereq: Grad st
Typically Offered: Spring

ECON 719 Economic Statistics and Econometrics III Credits: 3 - 4
Applications of econometric techniques to the analysis of production, consumer demand, and the national economy. Prereq: Econ 709 & 710
L&S Level: Advanced Typically Offered: Occasionally

ECON 734 Regional Economic Problem Analysis Credits: 3
Examination of major theories of regional economic development, with special emphasis upon the evolution and amelioration of regional economic problems. Selected techniques of regional analysis, including economic base multipliers, input/output models, and shift-share analysis are used in the context of setting regional development goals. Prereq: Grad st
Typically Offered: Occasionally

ECON 735 Monetary and Financial Theory Credits: 3
Advanced appraisal of theory and institutions of the financial system, monetary theory, the credit system and financial intermediaries. Prereq: Econ 714 or cons inst
Typically Offered: Fall

ECON 736 Macroeconomic Policy Credits: 3
Theoretical, empirical, and institutional aspects of the use of monetary, fiscal, and income policies to affect inflation, unemployment, and other policy goals. Prereq: Econ 735 or cons inst
Typically Offered: Occasionally

ECON 741 Theory of Public Finance and Fiscal Policy Credits: 3
Theoretical development of the functions of government in a mixed economy; welfare criteria for efficient government expenditures and taxation; nature of public goods and of redistribution activities of governments. Program budgeting and theoretical issues in cost-benefit analysis. Prereq: Grad st
Typically Offered: Fall
ECON 742 Theory of Public Finance and Fiscal Policy Credits: 3
Incidence of tax burdens and expenditure benefits on relative incomes; effect of taxation on microeconomic
decisions relating to work effort, investment, and consumption; analysis of the stabilization, growth, and debt
management policies in the context of the economy as a whole; problems in international taxation. Prereq: Grad
Typically Offered: Spring

ECON 747 Frontiers in Agricultural Economics 2 Credits: 3
Organization, design, and performance of food and agricultural markets. Industrial organization; firm boundaries,
contracting, and collective action; spatial, temporal, and quality dimensions of market design. Prereq:
Economics 709 and 711, or equivalent
Typically Offered: Spring

ECON 750 Labor Economics Credits: 3
Theoretical and empirical analysis of labor markets, labor mobility, the determination of earnings and
employment, and labor supply of the household unit; emphasizes recent research on current issues in public
policy. Prereq: Grad
Typically Offered: Fall

ECON 751 Survey of Institutional Aspects of Labor Economics Credits: 3
Taught on a modular basis: Labor Theories and Labor History; Union Political Activities; Collective Bargaining and
Public Policy. For use in analysis of problems in areas of labor markets, wages and human resources. Prereq:
Grad
Typically Offered: Spring

ECON 761 Industrial Organization Theory Credits: 3
A review of theories of the firm, oligopoly, and imperfect competition. Includes applications of economic theory
and game theory to agency theory, product diversity, technological change, and strategic behavior by firms--
among other problems. Prereq: Grad
Typically Offered: Fall

ECON 762 Empirical Analysis of Industrial Organization and Public Policy Credits: 3
A study of measurement in industrial organization and a survey of empirical tests of hypotheses in the field. The
theory and practice of antitrust is also covered. Each student will produce an original piece of research. Prereq:
Econ 761 or cons inst
Typically Offered: Spring

ECON 775 Introduction to Bayesian Decision and Control I Credits: 3
Common sampling models in business and economic problems, information from data, likelihood function of
parameters, choices of models, Bayes’ Theorem, subjective basis for probability, sequential nature of Bayesian
inference, prior and posterior distributions of parameters in binomial, poisson, exponential and normal
populations, comparison of two normal distributions, predictive distributions, decision theory, utility, risk aversion,
extensive form of analysis, two-action problems, point estimation, best population problems, economics of
sampling. Prereq: Stat 309, 313, or 311 or equiv
Typically Offered: Occasionally

ECON 805 Advanced Microeconomic Theory I Credits: 3
Economic behavior under uncertainty; measure of risk, information structure, stock market and asset pricing,
insurance theory, asymmetric information and incentive mechanisms. Prereq: Econ 713 or cons inst
Typically Offered: Occasionally

ECON 806 Advanced Microeconomic Theory II Credits: 3
General equilibrium analysis existence and computation of fixed points and competitive equilibrium, regular
economics, core, non-competitive approach to perfect competition and monopolistic competition. Prereq: Econ
713 or cons inst
Typically Offered: Spring

ECON 809 Topics in Microeconomic Theory Credits: 1 - 3
Topics in microeconomic theory. Subject changes each semester; may be repeated. Prereq: Econ 711, 713
Typically Offered: Occasionally
ECON 810 Advanced Macroeconomic Theory Credits: 3
Prereq: Econ 712-714
Typically Offered: Occasionally

ECON 836 Applied Macroeconometric Analysis Credits: 3
Analysis of theoretical and implementational problems of conducting multi-instrument stabilization policy. Topics: political-economic interface, policy-oriented macro models, the structures of large American econometric models, and selected problems experienced in coordinating policy instruments in recent years. Prereq: Econ 712 and 714 or cons inst
Typically Offered: Occasionally

ECON 845 Advanced Topics in Public Finance Credits: 1 - 4
Advanced public finance problems and literature, research; subject changes each semester; may be repeated. Modules. Prereq: Econ 713 and 714
Typically Offered: Occasionally

ECON 848 Health Economics Credits: 1 - 3
Health economics issues including demand, supply and pricing, market structure, medical malpractice, technological change, value of life, role of insurance, and other aspects of uncertainty. Prereq: Grad st
Typically Offered: Occasionally

ECON 871 Advanced International Economics Credits: 3
General equilibrium algebraic and geometric modeling of open economies with balanced trade, and the welfare economics of international exchange and barriers thereto. Prereq: Grad st
Typically Offered: Occasionally

ECON 872 Advanced International Economics Credits: 3
Algebraic and geometric modelling of open macroeconomics with unbalanced trade and payments, focussing analytically on the foreign exchange market and the determinants of the exchange rate. Prereq: Grad st
Typically Offered: Occasionally

ECON 873 Seminar-International Economics Credits: 2 - 3
Individual research and group discussion of selected topics in the theory of international trade. Prereq: Econ 872 & Grad st
Typically Offered: Occasionally

ECON 877 Economic Development-Theory Statistics and Policy Credits: 2 - 3
Theories and issues of economic growth, with special reference to underdeveloped areas; comparative growth experience, statistical measurement; case studies of the objectives and patterns of planning. Prereq: Cons inst or 1 yr of econ dev
Typically Offered: Occasionally

ECON 878 Economic Development-Theory Statistics & Policy Credits: 2 - 3
Continuation of 877 Prereq: Cons inst or 1 yr of econ dev
Typically Offered: Occasionally

ECON 880 Quantitative Economic Policy Credits: 1 - 3
Prereq: Econ 709 and con reg in 710
Typically Offered: Fall

ECON 899 Recent Advances in Economics Credits: 1 - 3
Selections from all fields of economic research. Content changes each semester. May be repeated. Prereq: Econ 711, 712, 713, 714 or cons inst
Typically Offered: Fall, Spring

ECON 901 Workshop in Mathematical Economic Theory Credits: 1 - 7
Prereq: Grad st
Typically Offered: Fall

ECON 902 Workshop in Economic Theory Credits: 1 - 7
Critical discussion of topics in the field of economic theory. Prereq: Grad st
Typically Offered: Spring
ECON 903 Workshop on Industrial Organization Credits: 1 - 7
Current research on the operation of markets in which individuals and firms act with imperfect information, are limited in their responses, may purchase heterogeneous commodities or factor services, and are concerned with conflicting goals. Prereq: Grad st
Typically Offered: Fall

ECON 904 Workshop on Industrial Organization Credits: 1 - 7
Continuation of 903 Prereq: Grad st
Typically Offered: Spring

ECON 913 Workshop in Econometrics Credits: 1 - 7
Current research in econometric model building, estimation and inference in econometrics Prereq: Grad st
Typically Offered: Fall

ECON 914 Workshop in Econometrics Credits: 1 - 7
Continuation of 913 Prereq: Grad st
Typically Offered: Spring

ECON 925 Seminar: Socio-Economic Change in Underdeveloped Areas Credits: 2 - 3
Social and economic factors relating to stability, growth, and change in the non-Western areas of the contemporary world. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ECON 955 Workshop in Labor Economics Credits: 1 - 7
Analysis of current research in wage determination and the functioning of labor markets. Prereq: Grad st
Typically Offered: Fall

ECON 956 Workshop in Labor Economics Credits: 1 - 7
Continuation of 955. Prereq: Grad st
Typically Offered: Spring

ECON 961 Selected Problems in Trade Regulation-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students. Prereq: Econ 761
Typically Offered: Occasionally

ECON 965 Workshop on Quantitative Macro-Economic Analysis Credits: 1 - 7
Current research on macroeconomic models, monetary theory and policy, the theory of portfolio selection, and the allocative and distributive performance of capital markets. Prereq: Grad st
Typically Offered: Fall

ECON 966 Workshop on Quantitative Macro-Economic Analysis Credits: 1 - 7
Continuation of 965 Prereq: Grad st
Typically Offered: Spring

ECON 968 Workshop on Public Economics Credits: 1 - 7
Individual research and group discussion of public expenditure programs with attention to investment in human capital, education, training, health information, and welfare programs. Reports on research in progress by students, staff, visiting scholars. Prereq: Cons inst or Econ 448
Typically Offered: Fall

ECON 969 Workshop on Public Economics Credits: 1 - 7
Continuation of 968 Prereq: Cons inst or Econ 448
Typically Offered: Spring

ECON 977 Workshop in International Economics Credits: 1 - 7
Current research in international trade; a wide range of topics in theory, quantitative analysis, statistics, and policy. For graduate students in their second or later years when working on theses. Prereq: Grad st
Typically Offered: Fall

ECON 978 Workshop in International Economics Credits: 1 - 7
Continuation of 977 Prereq: Grad st
Typically Offered: Spring
ECON 983 Interdepartmental Seminar-African Studies Credits: 3
Interdisciplinary inquiry in African society and culture. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ECON 990 Thesis Credits: 2 - 9
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring, Summer

ECON 999 Independent Work Credits: 2 - 9
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring, Summer

ENGLISH

ENGL 100 Introduction to College Composition Credits: 3
Focuses on development of rhetorical reading, listening, and writing abilities; provides practice in written and spoken communication (emphasis on writing); develops information literacy; provides a foundation for a variety of college course work and post-college careers. Prereq: Open to Freshmen only. Students may receive degree credit for only one Com A course taken in residence
General Education: COM A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 120 Introduction to Theatre and Dramatic Literature Credits: 3 - 4
Reading important plays, attending stage productions, writing and thinking critically about theatre and drama. Emphasis on developing analytic skills in dramatic literature and theatre production. 4-credit option requires additional writing. Prereq: Open to Fr. 4 cr sections meet Com B requirement
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 140 Comm B Topics in English Literature Credits: 4
A course on literature written in English that satisfies the Comm B requirement. Topic will vary by semester. Prereq: None
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 141 Science Fiction and Fantasy Credits: 3
An introduction to the literature of science fiction and fantasy; specific topics will vary. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 142 Mystery and Crime Fiction Credits: 3
An exploration of mystery and crime fiction written in English. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 143 The Graphic Novel Credits: 3
An introduction to graphic story-telling in English, including attention to its history and developing form in the present day. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 144 Women’s Writing Credits: 3
An introduction to literature in English written by women in various periods and places; specific topics will vary. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 145 American Dreamers Credits: 3
A study of novels, plays, poems, and films that focus on individuals who strive to achieve success and security in America. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
Since the 19th century, "America" has often been defined by its relationship with "Asia," through cultural influence, immigration, imperialism, and war. This course traces the role of Asia and Asians in American literature and culture, from the Chinese and Japanese cultural influences that helped shape literary modernism to the rise of a distinctive culture produced by Asian immigrants to America and their descendants. Prereq: None

ENGL 153 Literature and the Environment Credits: 3
An introduction to literature in English about the natural world and humankind's relationship with it; specific topics will vary. Prereq: None

ENGL 155 Myth and Literature Credits: 3
Introduction to concepts of myth and mythology, myth-making and the modern study of myth in relation to myths and legends common in English and American literature. Prereq: Open to Freshmen

ENGL 156 Literature and Medicine Credits: 3
This course explores literature as both a source of knowledge about medicine and as a catalyst for reflection about medical concepts and practices, including health, illness, dying, and disability. Students will consider ways that literature can serve as a resource for patients and healthcare practitioners. Prereq: None

ENGL 162 Shakespeare Credits: 3
Introduction to several of Shakespeare's most popular plays and their relation to other works of English and American literature. Prereq: Open to Freshmen

ENGL 167 British and American Writers Credits: 3
An introduction to British and American literature through particular writers and themes. Prereq: Open to Freshmen

ENGL 168 Modern Literature Credits: 3
A thematic introduction to literary works in a variety of genres written in English from the turn of the twentieth century to the present day. Emphasis may vary between writers from the U.S., Britain, Ireland, and other Anglophone nations. Prereq: Open to Freshmen

ENGL 169 Modern American Literature Credits: 3
An introduction to selected fiction, prose, drama and poetry written by Americans from the early twentieth century to the present day. Prereq: Open to Freshmen

ENGL 171 Literature, Gender, and Sexuality Credits: 3
A selected topic relating to gender and sexuality in literature. Prereq: None

ENGL 172 Literatures of Native America Credits: 3
Introduction to the oral and written literatures of the peoples of native North America. An engagement with texts across historical periods, tribal groups, and regions to examine forms such as oratory, sermon, testimony, autobiography, and contemporary poetry and novels. Prereq: Open to Freshmen

ENGL 173 Ethnic and Multicultural Literature Credits: 3
Introduction to literature that reflects the writing and experience of minority and ethnic groups. Texts will focus on a theme or problem. Prereq: Open to Freshmen
ENGL 174 Literature and Social Justice Credits: 3
An introduction to the multiple ways writers have used literary texts to engage with pressing questions about class, race, gender, equality, immigration, and other issues of social justice. Specific topics will vary. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 175 Literature and the Other Disciplines Credits: 3
The depiction and valuation of other academic disciplines and intellectual work in selected works of British and American literature and the intellectual influences of other disciplines on selected works and movements of British and American literature. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 176 Topics in Literature and Film Credits: 3
An introduction to the interplay of literature and film in English, with a focus on the analysis of novels, stories, poems and other writings and their representation and transformation in and through film; specific topics will vary. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 177 Literature and Popular Culture Credits: 3
A selected topic studying the intersection of literature and popular culture in various forms and media. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 178 Digital Media, Literature, and Culture Credits: 3
An introduction to the intersection of ever-evolving digital technologies with the production and reception of literature. Lectures will examine the role of digital media in structuring the knowledge and experience of literary works; discussions will provide opportunity for critical and potentially creative practice. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 181 First-Year Honors Seminar Credits: 3
Honors literature seminar for first year students. Topic and materials will vary. Prereq: Open to freshmen enrolled in an Honors program
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 182 Introduction to Literature for Honors Credits: 3
Introductory honors course in discussion format. Topic and materials will vary. Prereq: Open to Freshmen. Honors program students only
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 200 Writing Studio Credits: 1
The focus is on students' own writing in this workshop-oriented course for writers in any discipline. Theoretical and practical foundations for drafting, revising, and reviewing a range of academic genres and approaches. Prereq: Concurrent enrollment in another course where academic writing is assigned
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 201 Intermediate Composition Credits: 3
Provides practice in persuasive writing in various modes, styles, and genres; develops an understanding of the different contexts of writing, both scholarly and public; provides opportunities for exploring the relation between writing and speaking; and provides critical tools for the rhetorical analysis of expository prose. Prereq: Communications A satisfied. Not open to Freshmen or auditors
General Education: COM B  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 204 Studies in Writing, Rhetoric, and Literacy Credits: 3
What do texts do? How? For whom? How and why do writers and readers compose texts that have an impact? This course approaches these enduring questions of English studies from the perspective of Composition & Rhetoric, one of English's subfields. Emphasizing critical reading and writing and built around a central theme that varies by semester, the course prepares students to analyze historical and/or contemporary examples of how texts create communities, influence beliefs, and shape knowledge. Prereq: Com A and 3 credits in English (beyond English 100)
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable
ENGL 207 Introduction to Creative Writing: Fiction and Poetry Workshop Credits: 3
Prereq: 3 credits of literature; open to Sophomores only
General Education: COM B  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 214 The English Language Credits: 3
This course provides an overview of the structure, use, and development of the English language and its varieties. Students who have completed English 342 prior to fall 2014 may not enroll in this course.  Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 219 Shakespearean Drama Credits: 3
A survey covering most of the plays through 1600. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

ENGL 220 Shakespearean Drama Credits: 3
A survey covering most of the plays after 1600. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

ENGL 223 Vladimir Nabokov: Russian and American Writings Credits: 3
The major novels of Vladimir Nabokov studied in the context of Russian and American literatures. Nabokov as a quintessential artist in exile, whose work explores loss of language, country and home. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

ENGL 224 Introduction to Poetry Credits: 3
A survey of elements and styles of poetic form. Readings will be selected from British and American literature written in English. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 236 Bascom Course Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Freshmen
General Education: COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 241 Literature and Culture I: to the 18th Century Credits: 3
What is a person, a home, a nation, a world? What we now call "English literature" begins with these questions, imagining a cosmos filled with gods and heroes, liars and thieves, angels and demons, dragons and dungeons, whores and witches, drunken stupor and religious ecstasy. Authors crafted answers to these questions using technologies of writing from parchment to the printing press, and genres old and new, from epic and romance to drama and the sonnet. This course develops skills of critical reading and writing that are essential to majors and non-majors alike. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 242 Literature and Culture II: from the 18th Century to the Present Credits: 3
This course considers a period of unparalleled tumult: a time of vast world empires and startling new technologies, revolutions that radically redefined self and community, two cataclysmic world wars, the emergence of ideas of human rights, and the first truly global feelings of interconnectedness. How has literature captured and contributed to these dramatic upheavals? Some writers worldwide have struggled to invent new forms, new words, and new genres to do justice to a world in crisis, while others have reached back in time, seeking continuity with the past. We will explore enduring traditions of poetry and drama and think about experiments in the new, globally popular genre of the novel.
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ENGL 243 American Literary Cultures Credits: 3
Is America a new world, a city on a hill, an imperial power? Are American literatures revolutionary, nationalist, countercultural? This course explores how writers have wrestled with such questions for several hundred years. We will encounter literary figures from white whales to red wheelbarrows, focusing on the diverse geographies, cultural practices, and political mythologies that compose the Americas, and interrogating what is meant by American literature and what it means to be American. We will consider the ways that genres from Native stories to slave narratives to postmodern novels have contributed to social, intellectual, and political currents of American cultures. This course dev
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENGL 245 Seminar in the Major Credits: 3
This small seminar, taught by a faculty member, will offer students close instruction in the principles and practices of informed, engaged, critical reading and writing. While the texts and topics vary, each seminar will reinforce fundamental skills taught across the English major, strengthening students' capacities to write and speak powerfully and to build convincing, original, well-organized arguments that persuade audiences of their significance. Students will meet with the professor in individual writing conferences and will write at least 30 pages, including drafts and informal assignments spread throughout the semester. Prereq: 6 credits of introductory literature
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENGL 246 Literature by American Indian Women Credits: 3
Presents a broad range of literatures from diverse Native traditions and eras, to provide students with a basic knowledge of major issues affecting and best-known texts by American Indian women authors. Prereq: Open to Freshmen
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 248 Women in Ethnic American Literature Credits: 3
An introduction to American literature by and about women, written by authors from ethnic groups. Prereq: 6 credits of introductory literature
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 250 Women in Literature Credits: 3
Works by British and American writers, with emphasis on women writers of the twentieth century; close reading of texts and discussion of trends, themes, and special characteristics of the role of women in literature. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 270 A Survey of Asian American Literature Credits: 3
Survey of Asian American literature from 1880 to present. Prereq: 6 credits of introductory literature or consent of instructor
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 271 Writing with New Media Credits: 3
Digital technologies such as blogs, wikis, videogames, and social media sites present new sites for understanding how we consume and produce information. This course approaches these technologies by asking students to study how they fit within the long history of advances in writing technology. Students both analyze and create digital objects and arguments. The course prepares students to meaningfully engage with digital technologies by demonstrating how long-standing theories of reading and writing can be augmented to address emerging technological environments. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ENGL 274 Indigenous Literature of the Great Lakes Credits: 3
A study of the literature and cultural expression of peoples indigenous to the Great Lakes of North America. Close critical examination of formal aesthetics, literary history, and contemporary issues in oral tradition, autobiography, drama, poetry, novel, and film. Prereq: Open to Freshmen
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
ENGL 275 American Indian Oral Literatures Credits: 3
A study of American Indian oral literature including literature from Wisconsin tribes or from other regions such as Southwest or Great Plains. This course emphasizes Native American storytellers. Prereq: 6 credits of introductory literature or consent of instructor. Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 279 Special Topics in Literature Credits: 3
Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ENGL 304 Composition & Rhetoric In and Beyond the University Credits: 3
Introduces English majors and others to the study of writing and rhetoric. Covers major theories, practices, and research areas in the field of Composition & Rhetoric with attention to their importance both inside and outside the University. Prereq: Com A and 3 credits English (beyond English 100)
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 307 Creative Writing: Fiction and Poetry Workshop Credits: 3
An introductory creative writing course, enabling students to write fiction and poetry, and to read selected contemporary writers as models. Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the last week of classes. Prereq: Junior standing or completion of one of the following: English 207 taken Fall 2014 or later; or English 203 taken prior to Fall 2014
General Education: COM B  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 314 Structure of English Credits: 3
An introduction to linguistic methods of analysis and description of English syntax and morphology. Students who have taken English 324 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 315 English Phonology Credits: 3
Basic principles of phonetics and phonology applied to the description of English. Students who have taken English 330 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 316 English Language Variation in the U.S. Credits: 3
Description and analysis of geographical and social variation in English in the United States. Students who have taken English 331 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 318 Second Language Acquisition Credits: 3
An introduction to the systematic study of how people learn ESL and other second languages. An interdisciplinary survey emphasizing research in linguistics, psychology, education, and sociology into the phenomenon of second language acquisition. Students who have taken English 333 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 319 Language, Race, and Identity Credits: 3
Relation of culture and genetics to formal properties of human language; consideration of American English dialects and language disorders. Topics include: biological basis of language disorders; racial affiliation and social identity; maintenance of social boundaries; politics of education, speech therapy. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Biological or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 328 The Sixteenth Century Credits: 3
Introduction to the literature and culture of Britain in the sixteenth century. Students who have taken English 400 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ENGL 331 Seventeenth-Century Literature and Culture Credits: 3
An introduction to the literature and culture of Britain in the seventeenth century, including the work of John Donne and Ben Jonson. Students who took English 420 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 334 Eighteenth Century Literature and Culture Credits: 3
Introduction to eighteenth-century literature and culture, including such writers as Dryden, Defoe, Swift, and Pope. Students who have taken English 444 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 335 Stage and Page in the Long Eighteenth Century Credits: 3
This class is about what happens to English drama after Shakespeare's death. Public theaters closed, considered too racy for the moral health of the population. When they reopened in 1660, sex took center stage in productions of plays both old and new. Women acted on stages in London for the first time, both in roles originally written for cross-dressing boys and in new ones designed for female actors. Female playwrights entered the scene as well, writing for financial profit alongside their male counterparts. This class will read a sampling of plays and theatrical entertainments performed during the Restoration and eighteenth century as well as publications surrounding the world of the theater.
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 336 Eighteenth-Century Novel Credits: 3
Students who have taken English 459 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 340 Romantic Literature and Culture Credits: 3
An overview of the literature of the Romantic age in relation to philosophical, cultural, historical, artistic or scientific backgrounds and contexts. Students who have taken English 464 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 341 Romantic Poetry Credits: 3
English poetry from Wordsworth to Keats; certain essays, literary and critical, by the writers of the time. Students who have taken English 463 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 344 Victorian Literature and Culture Credits: 3
Introduction to Victorian writers, such as Dickens, the Brontes, the Brownings, and George Eliot, in historical context. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 345 Nineteenth-Century Novel Credits: 3
Introduction to the nineteenth-century novel. The century begins with Jane Austen, includes some of the great realist novelists, such as George Eliot and Charles Dickens, and ends with experiments in novel-writing by Oscar Wilde and Joseph Conrad. Students who have taken English 460 prior to fall 2014 may not enroll in this course
Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 346 Victorian Poetry Credits: 3
An exploration of Victorian poets, such as the Brownings, Tennyson, and Christina Rossetti. Any student who has taken English 473 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 351 Modernist Novel Credits: 3
An introduction to the work of Modernist novelists such as Virginia Woolf, James Joyce, and E. M. Forster. Students who have taken English 501 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ENGL 352 Modernist Poetry  Credits: 3  
Exploration of British, Irish, and Anglophone poets working in the early twentieth century, such as W. B. Yeats, T. S. Eliot, Gertrude Stein, and Ezra Pound. Students who have taken English 510 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 353 British Literature since 1900  Credits: 3  
Survey of twentieth-century British literature including fiction, poetry, and drama. Students who have taken English 507 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 355 Colonial and Early Romantic American Literature  Credits: 3  
Historical study of the major figures, genres, and ideas of the period (beginnings to 1835). Students who have taken English 608 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 356 Nineteenth-Century American Fiction  Credits: 3  
A comprehensive survey of the American novel from its beginnings in the late eighteenth century to 1914.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 357 Major American Poets  Credits: 3  
Development, range of ideas, and poetic theory of Freneau, Bryant, Whittier, Emerson, Poe, Longfellow, Lowell, Holmes, Dickinson, Lanier, Whitman, Lindsay, and Robinson. Students who have taken English 613 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 358 Literature of the American Renaissance  Credits: 3  
Historical survey of the major figures, genres, and ideas of the Romantic period (1835 to the Civil War). Students who have taken English 618 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 360 The Anglo-Saxons  Credits: 3  
Life and literature during the Old English period (c450-c1100). Primary emphasis on the vernacular and Latin writings of the Anglo-Saxons themselves. Extensive historical and archaeological background; attention to the development and character of monasticism, to the production of manuscripts, etc. All reading in translation. Students who have taken English 360 prior to fall 2014 may not enroll in the course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 361 Modern and Contemporary American Literature  Credits: 3  
Survey of modern and contemporary American literature including fiction, poetry, drama, and criticism. Students who have taken English 633 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 362 American Fiction since 1900  Credits: 3  
Intensive study of a limited number of major American authors or single novels.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 363 The American Short Story  Credits: 3  
Major American stories from Washington Irving to the present. Students who have taken English 610 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

ENGL 368 Chicana/o and Latina/o Literatures  Credits: 3  
Course explores historical, political, and aesthetic roots and directions of Latina/o and Chicana/o short stories, novels, poetry, music, plays, films, and essays. Intermediate/advanced study for English majors and/or CLS certificate program students. Students who have taken English 357 prior to fall 2014 may not enroll in this course.  Prereq:  Junior standing & 6 credits literature, or consent of instructor  
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer
ENGL 373 Contemporary Poetry Credits: 3
Study of significant recent poetry written in English. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 374 African and African Diaspora Literature and Culture Credits: 3
The course will explore classic literary and cultural texts from three regions: Africa, the Caribbean, and African America. We will consider the origins and evolution of the African diaspora, and the many forms of its expression. We will consider how the African diaspora has shaped US society today, exploring significant themes such as slavery and colonialism, race and cultural identity; intra-racial/cultural and cross-continental alliances and antagonisms; gender and genre; and the paradoxical fate so far-cultural visibility but peripheral political and economic power- of global Afro-cultures. We will think about how African-American writers have been influenced by the experience of the African Diaspora.
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 375 Literatures of Migration and Diaspora Credits: 3
An exploration of literature by or about people who leave homes and homelands by choice or compulsion.
Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 379 Postcolonial and World Literature Credits: 3
Introduction to the English language literatures of former colonies, primarily in Africa and South Asia. While scrutinizing the concept of the "postcolonial" and evaluating its many meanings, class will read some of the significant writers of the postcolonial world and attend to the literary traditions that produced them. Prereq: Six credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 381 Sophomore Honors: Research Methods in English Credits: 3
Introduction to the methods and tools of literary and literary/historical research, normally by tracing a theme, genre, or idea across several periods of literature. Course work leads to the writing of a long research paper.
Prereq: 6 credits of introductory literature & Honors student or consent of instructor
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 400 Advanced Composition Credits: 3
Focuses on developing complex understandings of rhetorical, ethical, and literary strategies for writing. Practice in writing a range of nonfiction genres with attention to varieties of style, context, critical standards, and conventions. Designed for students with a strong interest in writing. May include multi-modal assignments. Students who have taken English 315 prior to fall 2014 may not enroll in this course. Prereq: Completion of Com A and Com B; English 100, English 201, English 203 (prior to Fall 2014) or English 207 recommended. Junior or Senior standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 403 Seminar on Tutoring Writing Across the Curriculum Credits: 3
Explores current theory and research on the writing process and analyzes disciplinary genres and conventions. Teaches strategies for helping writers revise their work. As Undergraduate Writing Fellows, students will help their peers improve their writing in courses across the curriculum. Prereq: Consent of instructor and acceptance into the Writing Fellows Program. Students who completed English 316 prior to fall semester 2014 may not receive credit for English 403
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 407 Creative Writing: Nonfiction Workshop Credits: 3
This course explores a variety of non-fictional prose writing forms including (at the instructor's discretion) personal essay, memoir, travel writing, opinion pieces, investigative journalism, public science writing, and natural history writing. Some time is spent on theory and technique; some time is spent reading the work of established writers; some short writing exercises may be assigned. The major focus of the course is on student writing, both in the classroom and in individual conferences. Prereq: English 207 or 307 completed Fall 2014 or later; or, English 203 or 300 completed prior to Fall 2014. All others may apply for admittance by submitting an application and writing sample
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ENGL 408 Creative Writing: Fiction Workshop  Credits: 3
Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the last week of classes.  Prereq:  Completion of one of the following with a 3.0 or higher: English 207 or 307 taken Fall 2014 or later; English 203, 300-307 taken prior to Fall 2014
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 409 Creative Writing: Poetry Workshop  Credits: 3
Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the last week of classes.  Prereq:  Completion of one of the following with a 3.0 or higher: English 207 or 307 taken Fall 2014 or later; English 203, 300-307 taken prior to Fall 2014
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 410 Creative Writing: Playwriting Workshop  Credits: 3
This workshop explores the art and craft of writing for the stage. The course examines strategies that writers can use to tell stories and communicate ideas both theatrically and dramatically. Some time is spent on theory and technique; some time is spent reading the work of established writers; some short writing exercises may be assigned. The major focus of the course is on student writing, both in the classroom and in individual conferences. Prereq:  English 207 or English 307 required. All others may apply for admittance by submitting an application and writing sample the last week of classes during the preceding semester. No student may register for or be enrolled in more than one Creative Writing course in a semester without approval of the program coordinator. Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the last week of classes.  Prereq:  ENGL 207 or 307 taken Fall 2014 or later; English 203, 300-307 taken prior to Fall 2014
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 411 Creative Writing: Special Topics Workshop  Credits: 3
Variable topics including: the informal essay, the long poem, the novel, the novella, genre fiction (detective, juvenile, humor, science fiction, etc.), experimental prose and poetry, etc. Students will read models and write their own exercise and fulllength pieces. No student may enrolled in more than one Creative Writing course in a given semester without approval of the program coordinator. Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the last week of classes.  Prereq:  ENGL 207, 307, 407, 408, 409, 410, 411, or 511. Or, ENGLISH 301, 302, 303, 304, 305, 306 taken prior to Fall 2014
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 413 English Words: Grammar, Culture, Mind  Credits: 3
Words and rules of combination (grammar) are the two basic building blocks of language. In this course, we look at English words from different linguistic perspectives: As objects of grammar, words follow certain rules of combination (you wouldn't say "these dog"), but they also have internal structure. For example, a word like "hopefulness is fine, while "hopenessful" does not exist. From a psycholinguistic perspective we will examine how children learn these formal properties as well as the meaning of words. We will also study how words are stored in the mind and what one can learn from situations in which one cannot access the mental dictionary properly (for example, when one feels a wor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

ENGL 414 Global Spread of English  Credits: 3
Examination of the linguistic, social, and political impact of the spread of English around the world. Analysis of geographical, social, and stylistic variation in English in diverse world contexts. Students who have taken English 332 prior to fall 2014 may not enroll in this course.  Prereq:  Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 415 Introduction to TESOL Methods  Credits: 3
An introduction to the teaching of English to speakers of other languages. Exploration of the contexts in which English is taught, and methods and materials used to teach it. Students who have taken English 334 prior to fall 2014 may not enroll in this course.  Prereq:  Sophomore standing & consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 416 English in Society  Credits: 3
Social and public uses of English; relationships of English structure, lexicon, and discourse to race, gender, class, education, ethnicity, age, and identity; the role of English in public policy. Students who have taken English 336 prior to fall 2014 may not enroll in this course.  Prereq:  Sophomore standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ENGL 417 History of the English Language Credits: 3
Linguistic and sociolinguistic change in English from its beginnings to the present. Students who have taken ENGL 323 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 419 Gender and Language Credits: 3
Examines taken-for-granted understandings of language and gender. Students produce analytic assignments and research projects, drawing on interdisciplinary theories and methods to address the representation and enactment of gender in talk, writing, and/or literary works. Students who have taken English 341 prior to fall 2014 may not enroll in this course. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 420 Topics in English Language and Linguistics Credits: 3
Subject differs each year. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 422 Outstanding Figure(s) in Literature before 1800 Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 423 Topic in Medieval Literature and Culture Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 424 Medieval Drama Credits: 3
An introduction to the dramatic traditions of medieval England, from early church rituals performed inside quiet monasteries in the tenth century to the elaborate and often raucous urban guild cycles and morality plays of the fifteenth, and with special attention to the significance of spirituality, work, and play in medieval culture. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 425 Medieval Romance Credits: 3
An introduction to one of the first forms of narrative fiction, covering tales of adventure, magic, courtly love, and King Arthur from the twelfth through the fifteenth century. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 426 Chaucers Courtly Poetry Credits: 3
An introduction to the poetry of the most famous and influential medieval English poet, from his short lyrics on love through his dream visions of talking birds and castles built on ice to the historical romance Troilus and Criseyde. Readings will be in the original Middle English; no prior experience with the language is required. Students who have taken English 368 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 427 Chaucer's Canterbury Tales Credits: 3
An introduction to the most famous and influential medieval English poet through his best-known work and its playful and profound responses to some of the most pressing literary, social, political, and spiritual issues of his time. Readings will be in the original Middle English; no prior experience with the language is required. Students who have taken English 367 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 430 Topic in Early Modern Literature and Culture Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 431 Early Works of Shakespeare Credits: 3
Four plays through 1600, with the reading of several others. Students who have taken English 417 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer
ENGL 432 Later Works of Shakespeare Credits: 3
Four plays after 1600 with the reading of several others. Students who have taken English 432 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

ENGL 433 Spenser Credits: 3
Spenser's major poems. Students who have taken English 405 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 434 Milton Credits: 3
Major poems and selected prose. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 438 Topic in Eighteenth-Century Literature and Culture Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 439 Topic in Early American Literature and Culture Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 443 Outstanding Figure(s) in Literature since 1800 Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 444 Topic in Romantic or Victorian Literature and Culture Credits: 3
Topic varies from year to year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 446 Romantic Autobiographies Credits: 3
Autobiography and romanticism entered into the world at virtually the same moment. This is not only because the early part of the nineteenth century was a time in which, as one contemporary put it, "booksellers, public lecturers, pickpockets, and poets become autobiographers," but also because romanticism has often been understood as an ideology of the self in which the individual imagination is recognized as the source of the world. This course will explore the meaning of autobiography and its centrality to romanticism through readings in prose, poetry, and criticism. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENGL 453 Topic in British Literature and Culture since 1900 Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 454 James Joyce Credits: 3
Students who have taken English 503 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 455 A Study of an Outstanding Figure or Figures in American Literature Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 456 Topic in Nineteenth-Century American Literature and Culture Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 457 Topic in American Literature and Culture since 1900 Credits: 3
Subject differs each year. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
ENGL 458 Major American Writer or Writers Credits: 3
Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 459 Three American Novelists Credits: 3
Concentrated study of US novelist. Students who have taken English 619 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 461 Topics in Ethnic and Multicultural Literature Credits: 3
Literature in English by authors whose work reflects the experience of ethnic and minority groups. Prereq: 6 credits of introductory literature
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 462 Topic in Asian American Literature Credits: 3
Topics will vary. All topics will emphasize the following learning outcomes: awareness of history’s impact on the present, ability to recognize and question assumptions, development of critical thinking skills, awareness of relations between self and others, and effective participation in a multicultural society. Prereq: Six (6) credits of introductory literature
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENGL 463 Race and Sexuality in American Literature Credits: 3
Explores the intersection between race and sexuality in American literature with an emphasis on sex/gender difference, feminism, transgenderism, and nationalism. Focuses on the nature of literature as advocacy, with an emphasis on Asian-American issues. Students who have taken English 654 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENGL 464 Asian American Women Writers Credits: 3
A study of major texts by Asian American women writers. Prereq: 6 credits of introductory literature or consent of instructor
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 465 Asian American Poetry Credits: 3
Throughout the history of Asian America, poetry has been a vehicle for the creation and exploration of an Asian American voice; in poetry we can see the continuing struggle over what form Asian American expression will take. Will it follow Asian or European models? Will it employ traditional forms, or experiment in search of new styles? Will it be individual or collective, introspective or political? We will explore these questions through a study of a wide range of Asian American poets from a variety of historical periods and ethnicities, including Janice Mirikitani, Lawson Fusao Inada, Li-Young Lee, John Yau, Myung Mi Kim, and Linh Dinh. Prereq: 6 Credits of introductory literature
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ENGL 466 Contemporary American Indian Literature Since 1953 Credits: 3
A study of American Indian literary and cultural expression since 1953, the year of federal “termination” of Native nations and their subsequent revival. Close critical examination of historical and contemporary themes in autobiography, drama, poetry, and novel. Students who have taken English 650 prior to fall 2014 may not enroll in this course. Prereq: English 172 or consent of instructor
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ENGL 473 Topic in Postcolonial or World Literature Credits: 3
This course will follow a theme or question in literature that crosses national boundaries, inviting students to think about forces of imperialism and globalization. Specific focus will vary. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
ENGL 474 Topic in Contemporary Literature Credits: 3
Study of recent literature written in English. Specific topic will vary. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 477 Diaspora and Theatre Credits: 3
Study of the drama and theatre of a variety of immigrant communities in three Western locations: Britain, the
United States, and Canada. Course focuses on current theories of diaspora and transnationalism, the place of
theatre in diasporic writing, and the literary, performative, and material dimensions of the genre. Prereq:
Sophomore Standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

ENGL 478 Indian Writers Abroad: Literature, Diaspora and Globalization Credits: 3
Study of literature, drama, and film produced by authors of South Asian origin in Europe, North America, and the
Caribbean. Course considers theories of diaspora, changing patterns of subcontinental migration, and relation of
diasporic forms to the cultures of origin and adoption. Students who have taken English 524 prior to fall 2014 may
not enroll in this course. Prereq: 6 credits of literature
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 479 Contemporary World Theatre in English Credits: 3
Significant recent dramatists who have written in English. Prereq: 6 credits of literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 481 Junior Honors Seminar in the Major Credits: 3
Seminars focus on a variety of topics, usually a theme or a genre which draw upon literature of several periods.
Prereq: 6 credits of introductory literature & Honors student or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 482 Honors Seminar Credits: 3
Prereq: 6 credits of introductory literature & Honors student or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 500 Writing in Workplaces Credits: 3
First in a two-course sequence for juniors and seniors who want to develop broader awareness of workplace
writing in relation to personal literacy and rhetorical contexts. Practice in producing professional quality texts.
Attention to digital writing situations, including writing for the web. Serves as a prerequisite for English 501.
Students who have completed English 317 prior to fall 2014 may not enroll in this course. Prereq: Consent of
instructor; Preference to seniors and English majors. Com A and Com B. Students who have taken English 317 prior
to fall 2014 may not enroll in this course
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ENGL 501 Writing Internship Credits: 3
Practical experience in a workplace setting that requires writing. Minimum 6-10 hours per week plus class
meetings. Analysis of professional writing situations and conventions. A final report and reflection connects the
internship to previous coursework. May involve multi-modal composition (e.g., digital storytelling). Students who
have taken English 318 prior to fall 2014 may not enroll in this course. Prereq: English 317 and consent of
instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 505 Topics in Composition and Rhetoric Credits: 3
This course offers English majors and other interested students an opportunity for in-depth intellectual
engagement with the perspectives, concerns, and methods of Composition & Rhetoric. Topics vary in relation to
writing, rhetoric, literacy, and multimodal or digital approaches to any of these. Prereq: Completion of Com A
requirement and 3 credits in English (past English 100). Junior or Senior standing or consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 508 Creative Writing: Advanced Fiction Workshop Credits: 3
Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the
last week of classes. Prereq: Completion of one of the following: English 408 taken Fall 2014 or later; or English
301 taken prior to Fall 2014. No student may register for or be enrolled in more than one Creative Writing course
in a given semester without approval of the program coordinator
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ENGL 509 Creative Writing: Advanced Poetry Workshop Credits: 3
Students who do not meet the prerequisite may submit a writing sample to the program director on Monday of the last week of classes. Prereq: Completion of one of the following: English 409 taken Fall 2014 or later; or English 302 taken prior to Fall 2014. No student may register for or be enrolled in more than one Creative Writing course in a given semester without approval of the program coordinator.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 514 English Syntax Credits: 3
Introduction to syntactic theory as applied to the analysis of English sentences. Students who have taken English 329 prior to fall 2014 may not enroll in this course. Prereq: English 314 completed Fall 2014 or later, or 324 completed prior to Fall 2014.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 515 Techniques and Materials for TESOL Credits: 3
Supervised practice in the use of current techniques and materials in the teaching of English to speakers of other languages, including peer and community teaching with videotaped sessions. Students who have taken English 335 prior to fall 2014 may not enroll in this course. Prereq: English 415 completed Fall 2014 or later, or English 334 completed prior to Fall 2014.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 516 English Grammar in Use Credits: 3
A course in the functions of English grammar, covering use in a variety of contexts and text types. Assignments involve analysis of spoken and written English across genres and settings. Students who have taken English 325 prior to fall 2014 may not enroll in this course. Prereq: English 314 completed Fall 2014 or later, or 324 completed prior to Fall 2014.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 520 Old English Credits: 3
The elements of Old English grammar with selected readings. Students who have taken English 320 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 521 Advanced Old English Literature Credits: 3
An intensive study of a major work or works of Old English, usually focusing on either Beowulf or the poems of a single manuscript. Line-by-line translation of the text will be supplemented by discussion of related issues (whether linguistic, thematic, or contextual) as well as by readings from relevant critical literature. Primary texts will be read in Old English. Prereq: Completion of one of the following: English 520 taken Fall 2014 or later; English 320 taken prior to Fall 2014.
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 522 Middle English Language Credits: 3
The English language and its development in selected texts from the Norman Conquest to Chaucer. Students who have taken English 321 prior to fall 2014 may not enroll in this course. Prereq: 522 completed Fall 2014 or later, or 320 completed prior to Fall 2014.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 531 Humans, Non-Humans, Post-Humans Credits: 3
Literary study of the environmental relations between the humans and nonhuman elements of the natural world. Prereq: Six credits of introductory literature.
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 532 Literature and Animal Studies Credits: 3
We usually take for granted that literature is centrally about human experience, but here students will consider the ways that animals and animal consciousness figure in literature. This course will include theoretical as well as literary readings. Prereq: 6 credits of introductory literature.
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 533 Topic in Literature and the Environment Credits: 3
Course topic will vary. Prereq: 6 credits of introductory literature.
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
ENGL 534 American Drama and Theatre to 1900 Credits: 3
Significant American plays, playwrights and modes of theatrical production during the eighteenth and nineteenth centuries, with attention to the theatre as a force in a developing national culture. Prereq: Junior standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 537 Sex, Love, and Power: Topic in Literature and Sexuality Credits: 3
Exploration of ways that literary writers and theorists have engaged questions of sexuality. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 538 Women's Traditions in the Novel Credits: 3
Introduction to women's traditions in the novel and an exploration of theoretical issues arising from the claims for a gendered tradition. Students who have taken English 570 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 539 Jewish Literatures in Diaspora Credits: 3
An exploration of Jewish literature in English and in Anglophone contexts. Prereq: 6 credits of introductory English
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 543 Discourses of Disability, Antiquity to 1800 Credits: 3
Course centers on concepts of physical disability from antiquity to the Renaissance. Literary theory, philosophy, and history will help frame thinking about how disability is produced. Along with considering how canonical texts represent disabled figures, class will investigate the generic, social, and spatial contexts from which these representations arise. Prereq: 6 credits of intro lit
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 544 Modern Discourses of Disability Credits: 3
Study of the representations of physical and mental disabilities in fiction, poetry, memoir, drama, and film. Primary emphasis will be on texts produced in English since 1800. Prereq: 6 credits of intro lit
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 545 Feminist Theory and Women's Writing in English Credits: 3
Subject will vary. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 546 Topic in Travel Writing before 1800 Credits: 3
This course will examine some aspect of travel literature before 1800. It will pay attention to texts written by travelers of many stripes - pilgrims, missionaries, crusaders, counselors, merchants, and dreamers. It will explore how writers narrate relations between the familiar and the strange, the near and far. And it will ask students to consider the relationship of geography to conceptions of personal and collective identity. How do travel writers represent "us" and "them," "self" and "other"? Who claims space, who characterizes it, and on what grounds? Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 548 Topic in Literature and Politics Credits: 3
Course focus will vary. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 559 Topic in Literary or Cultural Theory Credits: 3
An exploration of the methods and principles of criticism; generally an experiment in the application of a particular critical method or a group of related critical presuppositions to an appropriate body of English and American literature. Content varies. Prereq: 6 cr of intro lit
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 560 Narrative Theory Credits: 3
An introduction to narrative theory--the study of stories. We will consider the purpose and value of stories for human cultures, their structure, and their ways of shaping experience. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ENGL 561 Modern Critical Theories Credits: 3
Variety and complexity of twentieth century critical thought. Intensive investigation of the works of selected theorists. Students who have taken English 553 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 562 Topic in Poetry and Poetics Credits: 3
An exploration of some aspect of poetic theory and practice, generally in terms of the shorter verse forms, and the application of practical criticism to an appropriate body of literature written in English. Content varies. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 571 Remix, Mashup, and Digital Design Credits: 3
Emerging technologies, from the Internet to computational machines, reshape how we read, write, and think. This course explores the significance of these new media technologies, how scholars have theorized digital writing, and how writing can be "remixed" with the use of digital technologies. Students in this course produce essays and then remix those essays using various digital technologies, transforming their writing into various forms, including graphic essays, video compositions, audio compositions, and computational media such as video games. Prereq: Communications A
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 572 Smart Media & Critical Information Design Credits: 3
Class focuses on "smart media" or emerging genres of scholarly communication, such as digital storytelling, theory comix, podcasts, Pecha Kucha, and interactive installations. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 575 British Drama, 1914 to Present Credits: 3
Plays and playwrights from the first World War to the present, including movements leading to the "revolt" of 1956 and subsequent proletarian and absurdist drama. Plays by Shaw, O'Casey, Maugham, Coward, Eliot, Osborne, Beckett, Pinter, Stoppard, Arden, Wesker, Bond, Churchill and others. Prereq: Junior standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 576 Survey: Theories of Drama Credits: 3
Selected major critical and theoretical sources, from Aristotle to the present day; the influences of theories upon playwriting and modes of theatrical production. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 577 Postcolonial Theatre: Drama, Theory and Performance in the Global South Credits: 3
Study of drama, dramatic theory and theatrical practices in postcolonial cultures, primarily in Asia, Africa and the Caribbean. Course considers status of drama/theatre in postcolonial studies and focuses on issues of form, language, intertextuality, trans-culturation, material organization and reception. Prereq: Junior standing or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ENGL 578 Modern American Drama and Theatre Credits: 3
Representative twentieth-century plays from Glaspell and O'Neill to the present considered within contemporary cultural, theatrical and academic context. Prereq: Junior standing
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 593 Literature of Jewish Identity in America Credits: 3
The construction of Jewish American identity within American life. Prereq: 6 credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 613 TESOL: Pedagogical Grammar I Credits: 1
A focus on understanding English grammar from a pedagogical perspective for the purpose of teaching English as a second or foreign language. Prereq: English 415 completed Fall 2014 or later, English 334 completed prior to Fall 2014, or consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ENGL 614 TESOL: Pedagogical Grammar II Credits: 1
A focus on understanding English grammar from a pedagogical perspective for the purpose of teaching English as a second or foreign language. The emphasis is on theory and techniques applicable to teaching English grammar. Prereq: English 415 completed Fall 2014 or later, English 334 completed prior to Fall 2014, or consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 615 TESOL: Teaching Listening and Speaking Credits: 1
An overview of listening and speaking skills and how to teach them. Prereq: English 415 completed Fall 2014 or later, English 334 completed prior to Fall 2014, or consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 616 TESOL: Teaching of Reading Credits: 1
An overview of reading and vocabulary skills and how to teach them. Prereq: English 415 completed Fall 2014 or later, English 334 completed prior to Fall 2014, or consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 617 TESOL: Teaching of Writing Credits: 1
Practical modular workshop on key aspects of language teaching, stressing the application of techniques and theory to classroom needs. Prereq: English 415 completed Fall 2014 or later, English 334 completed prior to Fall 2014, or consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 618 TESOL: Teaching Pronunciation Credits: 1
An overview of the features of English pronunciation and how to teach them. Prereq: English 415 completed Fall 2014 or later, English 334 completed prior to Fall 2014, or consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 622 Topics in English: Study Abroad Credits: 1 - 6
A course carried with a UW-Madison Study Abroad Program which has no equivalent on this campus. Prereq: Current registration in a UW-Madison study abroad program
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ENGL 672 Selected Topics in Afro-American Literature Credits: 3
An intensive analysis of specific themes in the Afro-American experience. Subjects vary with instructor. Prereq: Junior standing. Students wanting credit in English must have 6 credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 680 Honors Project Credits: 3
For further information, consult the department's Honors Coordinator or Undergraduate Advisor. Prereq: English 481
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 681 Senior Honors Thesis in the Major Credits: 3
For further information, consult the department's Honors Coordinator. Prereq: Completion of English 481 & consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 682 Senior Honors Thesis in the Major Credits: 3
Continuation of 681  Prereq: Completion of English 681
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 691 Senior Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 692 Senior Thesis Credits: 3
Prereq: Completion of English 691
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ENGL 695 Directed Creative Writing Credits: 3
Individually directed writing of a poetry or fiction manuscript. Prereq: Senior creative writing majors with 9 credits of 300-level creative writing (English 300, 301, 302, 303, 305, 307), or consent of director of Creative Writing Program
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ENGL 699 Directed Study Credits: 1 - 3
Prereq: Junior or Senior standing; previous or concurrent work at intermediate level in same subject; consent of instructor & specific dept advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ENGL 700 Introduction to Composition Studies Credits: 3
Rhetorical, linguistic, psychological, and social foundations of writing; implications for instruction. Prereq: Graduate standing or consent of instructor
L&S Level: Advanced  Typically Offered: Occasionally

ENGL 701 Writing and Learning Credits: 3
Historical, critical and philosophical perspectives on the relationship between writing and learning. In addition to reviewing current research, students will have the opportunity to carry out their own investigation designed to study possible relationships between writing and learning. Prereq: Graduate standing & consent of English department Grad advisor
Typically Offered: Occasionally

ENGL 702 Perspectives on Literacy Credits: 3
Social, historical, and educational perspectives on literacy and literacy learning. Prereq: Graduate standing & consent of instructor
L&S Level: Advanced  Typically Offered: Occasionally

ENGL 703 Research Methods in Composition Studies Credits: 3
Introduction to quantitative and qualitative research methods in composition studies. Prereq: English 700 or consent of instructor
Typically Offered: Occasionally

ENGL 704 Intellectual Sources of Contemporary Composition Theory I-Classical Credits: 3
Selected issues in the history of rhetoric, concentrating on classical theories of invention, and their importance for contemporary issues in composition theory. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 705 Intellectual Sources of Contemporary Composition Theory II-Modern Credits: 3
Historical, critical, and philosophical perspectives on the development of composition studies during the modern era, with special emphasis on the 20th Century. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 706 Special Topics in Composition Theory Credits: 3
In-depth treatment of specific problems, questions, themes, authors, texts, or historical periods in composition and rhetoric. Subject will differ each year. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 708 Advanced English Syntax Credits: 3
Modern syntactic theory applied to selected areas of English grammar, including the interface between syntax and the lexicon, and morphology. Prereq: English 329 or Linguis 330 or consent of instructor
Typically Offered: Occasionally

ENGL 709 Advanced English Phonology Credits: 3
Problems of English segmental and suprasegmental phonology, including morphophonemic alterations and stress assignment. Prereq: English 330 or consent of instructor
Typically Offered: Occasionally
ENGL 710 Interaction Analysis: Talk as Social Organization Credits: 3
The study spoken English as a site for social organization. Theoretical foundations and methodological practices for conversation analysis will be explored using videotaped data from English. Content includes current critical trends in analyzing interaction as well as cross-cultural and cross-linguistic perspectives. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 711 Research Methods in Applied Linguistics Credits: 3
An introduction to various research paradigms in applied linguistics and second language acquisition. A preparation for critically evaluating published research in applied linguistics and second language acquisition. Prereq: Graduate standing & consent of instructor
Typically Offered: Occasionally

ENGL 712 Advanced Placement Seminar for High School Teachers Credits: 1 - 3
A seminar for high school advanced placement English courses, providing a workshop for sharing techniques and defining pedagogical objectives for AP courses. Prereq: High school teachers or consent of instructor
Typically Offered: Occasionally

ENGL 713 Topics in Contemporary English Linguistics Credits: 3
Subject differs each year. Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 715 Advanced Second Language Acquisition Credits: 3
An examination of linguistic, psychological, and sociological theories of second language acquisition and their application to research in syntax, phonology, lexicon, or pragmatics of a second language. Prereq: English 333 or consent of instructor
Typically Offered: Occasionally

ENGL 719 Summer Writing Workshop Credits: 1 - 3
A writing workshop for high school teachers or other post-baccalaureate students. Prereq: Graduate standing, Special student, or consent of instructor. May be used to satisfy program requirements only by permission of relevant program adviser
Typically Offered: Summer

ENGL 722 Composition and Critical Theories Credits: 3
Study of the relationship between composition and critical theories. Prereq: English 700, Graduate standing & consent of instructor
Typically Offered: Occasionally

ENGL 731 Advanced Theatre History 500 BC to 1700 Credits: 3
Problems of scholarship in the dramatic, performance and staging practices of major traditions of world theatre history between 500 BCE and 1700 including the theatres of ancient Greece and Rome; medieval, Renaissance and early modern Europe; and the Muromachi and Tokugawa eras in Japan. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 732 Advanced Theatre History 1700 to Present Credits: 3
Problems of scholarship in the dramatic, performance and staging practices of major traditions of world theatre history since 1700, including melodrama, naturalism, the avant-garde, and other movements that helped shaped contemporary theatre. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 737 Feminist Theory and Criticism Credits: 3
Feminist theory, with an emphasis on literary and cultural theory and criticism in English. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 780 Creative Writing: Graduate Workshop Credits: 3
The course provides professional training in the writing of fiction, poetry, or creative non-fiction. The topic of the course will vary from semester to semester. Prereq: Submission of writing sample to instructor before registration. Graduate or LS9 standing
Typically Offered: Occasionally
ENGL 781 Graduate Fiction Workshop Credits: 3
Graduate level fiction workshop for MFA creative writing students. Open to other graduate students by submission of writing sample. Students write short stories and novel chapters, critique the work of fellow students and read contemporary fiction. Prereq: Admission to the MFA in creative writing or permission of director of creative writing
Typically Offered: Occasionally

ENGL 782 Graduate Poetry Workshop Credits: 3
Graduate level poetry workshop for MFA creative writing students. Open to other graduate students by submission of writing sample. Students write poems, critique the work of fellow students and read contemporary poetry. Prereq: Admission to the MFA in creative writing or permission of director of creative writing
Typically Offered: Occasionally

ENGL 783 Creative Writing Pedagogy Seminar Credits: 3
Graduate level course in creative writing pedagogy required of all incoming MFA in creative writing students. Prereq: Admission to the MFA in creative writing or permission of director of creative writing
Typically Offered: Occasionally

ENGL 785 MFA Thesis Credits: 3 - 6
Thesis hours for MFA creative writing students. Students work to complete a book of short stories, poems or a novel. Prereq: Admission to the MFA in creative writing
Typically Offered: Occasionally

ENGL 790 Proseminar in the Teaching of Writing Credits: 1
Introduction to the teaching of writing; guides first-time and prospective teachers in teaching and evaluating a first-year writing class. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ENGL 795 One-credit Seminar Credits: 1
Subject differs each semester. Prereq: Graduate standing & consent of English dept Graduate advisor
Typically Offered: Occasionally

ENGL 799 Independent Reading Credits: 1 - 6
Prereq: Consent of English Graduate advisor & director of English Graduate division
Typically Offered: Occasionally

ENGL 800 Critical Methods in Literary Studies Credits: 3
A gateway course that introduces students to theories and methods that are important to literary studies. Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 803 Topics in Medieval Literature Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 804 Topics in Early Modern Literature Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 805 Topics in Eighteenth-Century Literature Credits: 3
Selected works, with an emphasis on literary and cultural background. Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 806 Topics in Romanticism Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 807 Topics in Victorian Literature and Culture Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally
ENGL 808 Topics in Modernism Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 809 Topics in British and Anglophone Literature and Culture since 1900 Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 810 Topics in Early American Literature Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 811 Topics in Nineteenth-Century American Literature and Culture Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 812 Topics in American Literature since 1900 Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 813 World and/or Postcolonial Literature in English Credits: 3
Literatures in English with origins outside Britain and the United States; theories and/or histories in postcolonial, Anglophone, and/or world literatures in English. Topics will vary. Prereq: Graduate standing
Typically Offered: Occasionally

ENGL 814 Topics in Contemporary Literature Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally

ENGL 816 Topics in Ethnic and Multicultural Literature Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally

ENGL 817 Seminar-American Literature Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 820 Topics in Poetry Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 822 Topics in Literary and Cultural Theory Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 825 Topics in Literature and the Environment Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally

ENGL 826 Topics in Digital Studies Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally

ENGL 828 Topics in Material Culture Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally

ENGL 829 Topics in Migration and Diaspora Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally
ENGL 830 Topics in Print Culture and History of the Book Credits: 3
Topics will vary. Prereq: Graduate standing and consent of English Department Graduate Adviser
Typically Offered: Occasionally

ENGL 850 Proseminar in Theatre Research Credits: 3
Provides a foundation for postgraduate theatre and performance research by examining the methods used in the study of theatre and performance. It considers how criticism, theory, historiography and other methods have been employed in analysis of performance. It also discusses professional issues around working in theatre and performance studies as a teacher, scholar, dramaturge or applied theatre practitioner. Prereq: Graduate or professional standing
Typically Offered: Occasionally

ENGL 859 Seminar-Interdisciplinary Theatre Studies Credits: 2 - 3
A seminar in topics related to advanced research in theatre and performance studies. Topics vary by semester.
Prereq: Graduate or professional standing
Typically Offered: Occasionally

ENGL 879 Advanced Seminar in Literary Studies Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 900 Topics in Composition Study Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 905 Seminar-Topics in Applied English Linguistics Credits: 3
Topics vary. Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 906 Seminar-The English Language Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

ENGL 990 Dissertation Research in English Credits: 1 - 12
In connection with the doctoral thesis. Consult graduate advisor. Prereq: Graduate standing & consent of PhD advisor
Typically Offered: Occasionally

ENGL 999 Independent Reading for PhD Prelims Credits: 1 - 12
Consult graduate advisor. Prereq: Completion of PhD. English course requirements: consult English department PhD advisor
Typically Offered: Occasionally

ENGLISH AS A SECOND LANGUAGE

ESL 110 Intensive English as a Second Language Credits: 4 - 6
Fall and Spring, 6 credits; Summer, 4 credits. Listening, speaking, reading, and writing skills for nonnative speakers of English; academically oriented. Prereq: Consent of program director. Not open to auditors. Does not count toward graduation requirements. Open to Freshmen
Typically Offered: Fall, Spring, Summer

ESL 114 Intermediate English Language Skills Credits: 3
Semi-intensive course in intermediate English language skills. This multi-skills course focuses on reading, writing, and communication skills essential in an academic setting. Prereq: ELS Assessment Test (ESLAT) required; info at 5134 White Hall. Does not count toward graduation requirements. Not open to auditors. Open to Fr
Typically Offered: Fall, Spring, Summer

ESL 115 Grammar for Academic Use Credits: 3
A review of English grammar through intensive written and oral practice to promote accurate and appropriate language use for students who have already studied grammar extensively and need to refine the ability to produce acceptable academic English. Prereq: ELS Assessment Test (ESLAT) required; info at 5134 White Hall. Does not count toward graduation requirements. Not open to auditors. Open to Freshmen
Typically Offered: Fall, Spring, Summer
ESL 116 Academic Reading and Vocabulary Skills Credits: 3
Reading strategies for academic work; reading with increased comprehension and speed, vocabulary expansion, and summary writing. Prereq: ESL Assessment Test (ESLAT) required; information at 5134 White Hall. Does not count toward graduation requirements. Not open to auditors. Open to Freshmen.
Typically Offered: Fall, Spring, Summer

ESL 117 Academic Writing I Credits: 3
Basic elements of academic writing, emphasizing improved fluency and accuracy, paragraph structure, summarizing and paraphrasing, short essays, and a final research project. Prereq: ESL Assessment Test (ESLAT) required; information at 5134 White Hall. Does not count toward graduation requirements. Not open to auditors. Open to Freshmen.
Typically Offered: Fall, Spring, Summer

ESL 118 Academic Writing II Credits: 3
Fulfills the undergraduate Communication requirement, Part A. Academic writing, critical reading and argumentation, documentation, and style and organization of research papers; oral communication skills for effective class participation and presentations. Prereq: ESL Assessment Test (ESLAT) required; information at 5134 White Hall. Not open to auditors. Open to Freshmen. Students may receive degree credit for only one Com A course taken in residence.
General Education: COM A L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ESL 328 Academic Skills Workshops Credits: 1 - 3
Academic skills for ESL students; workshops (15 hours each) on skills required for effective academic communication; topics vary, but include general and discipline-specific academic skills. Prereq: Graduate standing or consent of program director. Does not count toward graduation requirements. Not open to auditors.
Typically Offered: Occasionally

ESL 343 Oral Communication Skills Credits: 3
Practice in formal and informal communication skills, including listening comprehension, pronunciation, and conversational and presentation skills useful in an academic setting. Prereq: ESL Assessment Test (ESLAT) required; information at 5134 White Hall. Does not count toward graduation requirements. Not open to auditors.
Open to Freshmen
Typically Offered: Fall, Spring, Summer

ESL 344 Academic Presentations and Discussion Credits: 2 - 3
Fall and Spring, 3 credits; Summer, 2 credits. Oral communication and presentation skills essential for participation in seminars, conferences, and other academic and professional settings. Prereq: Graduate standing or consent of ESL program director.
Typically Offered: Fall, Spring, Summer

ESL 345 American English Pronunciation Credits: 1
Techniques for improvement of the pronunciation of American English for non-native speakers of English.
Prereq: None
Typically Offered: Fall, Spring

ESL 349 Academic Writing for Graduate Students Credits: 2 - 3
Aspects of research writing, including data presentation, literature review, summarizing, critical summarizing, and discussion. Grammar and editing skills are also emphasized. Prereq: Graduate standing or consent of instructor.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ESL 350 Professional and Academic Writing Skills Credits: 2 - 3
Fall and Spring, 3 credits; Summer, 2 credits. Students work on writing projects in their own fields, such as dissertations and theses, research reports, or articles for publication. In addition, general academic writing skills, documentation and genre-specific style are covered. Prereq: Graduate standing & consent of instructor.
Typically Offered: Fall, Spring, Summer
ESL 352 English for Lawyers Credits: 3
This course is designed to help law students who are non-native speakers of English improve their reading, writing, listening and speaking skills. Students will have the opportunity to express their ideas both formally and informally in small and large group discussions and to produce formal written work. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ESL 370 International TA Training Credits: 0 - 2
This course focuses on the communication skills, classroom culture, and teaching strategies essential for effective classroom teaching at an American university. Prereq: None
Typically Offered: Fall, Spring, Summer

FOLKLORE PROGRAM

FOLKLORE 100 Introduction to Folklore Credits: 3
Surveys folklore in the United States and around the world, with a comparative emphasis on ways in which individuals and groups use beliefs, songs, stories, sayings, dances, festivals, and artifacts to address issues of identity, authenticity, and authority, in complex societies. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOLKLORE 102 Introduction to Comparative Ethnic Studies Credits: 3 - 4
This course introduces students to a multicultural history of the United States, focusing on each of the major ethnic groups: European Americans, African Americans, Native Americans, Chicano/as, Latino/as and Asian Americans. Prereq: Fr and So only; others by cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOLKLORE 103 Introduction to Music Cultures of the World Credits: 2
Music in various parts of the non-Western world (Africa, Middle East, India, Southeast Asia, East Asia). Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE 210 The African Storyteller Credits: 3
The oral tradition and the written word; the composition of stories, relationship between performer and audience, and transmission of tradition in various African societies. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FOLKLORE 211 Global Language Issues Credits: 4
A series of modules, each showcasing one language and its culture. Each module tackles a major issue about language, such as extinction and revival, language and nationhood, how widely and deeply languages differ, language and wordview, writing systems and literacy, language discrimination and inequality. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 220 The Folk Tale Credits: 3
Types of heroes, social functions, and tellers; tales from four cultures. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FOLKLORE 230 Introduction to American Folklore Credits: 3
Folklore of ethnic, regional, religious, and occupational cultures, emphasizing how diverse peoples (African Americans, American Indians, Appalachians, Chicanos, Germans, Irish, Jews, Mormons, miners, service workers, etc.) use traditional festivals, artifacts, songs and stories to express their experiences within American life. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FOLKLORE 270 The Hero and Trickster in African Oral Traditions Credits: 3
Two major characters in African oral tradition as treated in narrative, epic and heroic poetry. Prereq: None
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
FOLKLORE 279 Introduction to Turkish Folk Literature  Credits: 3
Survey of major genres of Turkish folk literature including oral epic, heroic and romance tales of minstrels, mystical love poetry, fairy tales, dervish tales, legends, riddles, proverbs, and jokes with emphasis on performance contexts and cross-cultural perspectives. Prereq: Successful completion of or exemption from Com-A requirement. Open to Fr
General Education:  COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOLKLORE 320 Folklore of Wisconsin  Credits: 3
Introduction to folk cultural groups and folklore forms of Wisconsin. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOLKLORE 321 Javanese Performance  Credits: 2
Technique and practice of classical Javanese dance in its musical, historical and cultural contexts. Prereq: Junior standing or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOLKLORE 326 Introduction to Asian Performance  Credits: 3 - 4
Issues in the study of Asian performance. Principal genres of Asian performance through study of techniques and aesthetics, and plays: East West theatre relationships. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 342 In Translation: Mythology of Scandinavia  Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE 344 Anthropological Approaches to Folklore  Credits: 3
Folklore as cultural process. Reviews interdisciplinary history of theories and methods, examining folklore in terms of genres, performance, cultural construction of gendered identities, sociology of knowledge, domination and resistance. Involves field collections. Enrollment limited to 25. Prereq: Anthro 100, 104, 204 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FOLKLORE 345 In Translation: The Scandinavian Tale and Ballad  Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE 346 In Translation: The Icelandic Sagas  Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FOLKLORE 347 In Translation: Kalevala and Finnish Folk-Lore  Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FOLKLORE 352 Shamanism  Credits: 3
Survey of shamanism as a religious tradition and sociocultural force in Siberian, Asian, and Native American societies. Exploration of shamanic rituals, roles, cosmology. Cultural and political uses of shamanism in traditional and modern contexts.
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FOLKLORE 359 Myth  Credits: 3
The relationship between myth and tale, history, culture. Myth research; methodological approaches; world mythologies; myth and modern times. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FOLKLORE 374 Indian Folklore  Credits: 3
An introduction to Indian folklore; with all its traditions and genres; folktales, folksongs, myths, rituals, as well as literary sources like the epics. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
FOLKLORE 399 Directed Study in Folklore for Undergraduates Credits: 1 - 3
Directed study on a folklore topic for undergraduates. Prereq: Cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

FOLKLORE 401 Musical Cultures of the World Credits: 3
Survey of selected musical cultures in Southeast Asia, Africa, East Asia, the Middle East, and the folk music of Europe and the Americas. Classification of musical instruments, theoretical systems, scale structures, role of music in society, relationship of music to other arts in their cultures. Prereq: Cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 402 Musical Cultures of the World Credits: 3
Continuation of 401. Prereq: Cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 404 Music of S.E. Asia: Tradition, Innovation, Politics, and Religion Credits: 3
Considers major musical traditions of Southeast Asia in relation to historical and contemporary contexts, emphasizing religion and politics. Covers indigenous music theories, instrumental and vocal practices, cross-cultural interactions, broadcast and recording media representations, and role of music in religious and political dynamics. Prereq: So st & cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 411 African Poetry Credits: 3 - 4
Analysis of oral and written poetry from various African cultures. Prereq: Jr st
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 421 Javanese Performance Repertory Credits: 2
Introduction to Javanese theatre performance in a Javanese epic tradition. Includes use of Javanese gamelan music as accompaniment for dance drama. Prereq: None
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

FOLKLORE 428 Gender and Expressive Culture Credits: 3
Examines the relationship between dominant images of women and men and their self-images, as they emerge in expressive culture in various societies. Prereq: Jr st
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FOLKLORE 430 Topics in American Folklore: Ethnic Studies Credits: 3 - 6
Topics in American Folklore-Ethnic Studies. Topics in historical or contemporary folklore and folklife pertaining to persistently marginalized racial or ethnic groups in the United States. Prereq: None
Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

FOLKLORE 431 American Indian Folklore Credits: 3
An introduction to the genres of American Indian Folklore. Special attention is given to creation stories, trickster tales, and the relationship between folklore and historical memory. Prereq: Jr st & one of the following: Anthro 314 or 344; Folklore 100 or 230 or 320; or cons inst
Ethnic Studies: Yes L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

FOLKLORE 437 American Indian Women Credits: 3
Examines and interprets the roles of American Indian women in traditional societies, and in contemporary North America. Prereq: 1 crse in Amer Ind St, Anthro 314 or Women St 223, 101, or 102
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

FOLKLORE 439 Foodways Credits: 3
Explores artistic, social, sensory, and spiritual expressions through food that convey personal, group, and place-based identities, ethnicity, gender, and class in work and play. Reviews range of food writing and scholarly perspectives including culinary historical, structural-functional, and performance. Requires fieldwork. Prereq: Jr, Sr, or Grad st, or prior coursework in folklore. Cons inst for motivated Fr & So stdts
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
FOLKLORE 440 Scandinavian American Folklore Credits: 3
Examines the verbal, musical, customary, and material folklore of Scandinavian Americans, with emphasis on the upper Midwest. Requires field and archival research. Prereq: Jr st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

FOLKLORE 443 Sami Culture, Yesterday and Today Credits: 4
Interdisciplinary study of Sami (Lapp) people of Scandinavia past and present. Indigenous modes of expression and worldview, contemporary cultural and political activism. Extensive discussion of connections to Native American and Inuit experiences; rise of U.S. and other indigenous peoples' movements. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 444 Slavic and East European Folklore Credits: 3
Oral traditional literature of Eastern Europe: ritual and lyric poetry, epic, and folktale. Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FOLKLORE 446 Celtic-Scandinavian Cultural Interrelations Credits: 3
Examination of shared traditions and historical connections between the North and Northwest of Europe. Readings of medieval and pre-modern Scandinavian, Scottish, Welsh and Irish sagas, histories, tales, and discourses of the role of folklore in modern Celtic and Scandinavian societies. Prereq: So st or above required, or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FOLKLORE 451 The Supernatural in the Modern World Credits: 3
Explores evidence of belief in the supernatural in the modern world as it appears in the context of folk religion, folk medicine, legends, folk drama, ritual and custom, and media accounts and presentations. Surveys scholarly approaches to the topic. Prereq: Jr st or cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 460 Folk Epics Credits: 3
Oral nature, structure, performance traditions, and epic ideology, from various world areas. Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FOLKLORE 467 Women and Politics in Popular Culture and Folklore Credits: 3
How popular culture and folklore have been used by women as rhetorical tools that promote deliberation and debate, broaden political engagement, and advance particular social identities. Global content, with examples from around the world. Prereq: A Gender and Women's Studies course, or a Folklore course or Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 468 Feminism, Folklore and Comparative Literature Credits: 3
Explores feminism, folklore and comparative literature from a variety of perspectives drawing from scholarship in feminist philosophy, folklore, anthropology, critical cultural studies, and postcolonial theory. Prereq: 3 credits of Gen&WS, or 3 Credits of Folklore, or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 471 Oral Traditions and the Written Word Credits: 3 - 4
Analyses and comparisons of African oral narrative-performances and African written literatures. Prereq: African 210, 402, or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

FOLKLORE 490 Field Methods and the Public Presentation of Folklore Credits: 3
The course combines a fieldwork practicum with scrutiny of the cultural, political, and ethical dimensions underlying the documentation and public presentation of folklore through festivals, exhibitions, publications, and audio-visual productions. Prereq: Sr st, two crses in folklore or cultural anthro or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

FOLKLORE 491 Practicum in Public Folklore Credits: 1 - 3
Offers professional experiences to qualified students who work as interns with a public agency or a private non-profit organization involved in public folklore projects. Prereq: Jr st, Folklore 490 or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
FOLKLORE 510 Folklore Theory Credits: 3
Symbolical, psychoanalytic, Marxian, structuralist and performance theory models for analyzing expressive culture. Topics include play, ritual, festival, food, customs, class and the symbolism, structure and politics of narrative. Prereq: Crse in anthro or folklore or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE 512 Material Culture Analysis: The Arts and the Consumer Society Credits: 3
The meanings of objects--both art objects and consumer goods. Interactions between people and objects; "decoding" objects as primary sources of information about the people/cultures that make and use them. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 515 Proseminar in Ethnomusicology Credits: 3
Introduction to ethnomusicology, including historical survey of major works in the field, classification of musical instruments, measurement of tuning systems and concepts of scale, mode and rhythm in non-Western music. Prereq: Music 401-402 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 517 The Irish Tradition Credits: 3
Study of the Irish literary tradition from the Middle Ages to the present day, with an emphasis on folk culture and its influence. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE 520 Ethnic Representations in Wisconsin Credits: 4
Representation and self-representation of ethnic cultures in Wisconsin. For example: museums, mass media, ethnic theater. Involves field work and/or archival research. Prereq: Anthro 300 or Folklore 200 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 522 Digitally Documenting Everyday Communication Credits: 3
Teaches the use of digital recording technologies, archiving, and analysis of everyday communication and culture. Surveys scholarly approaches to everyday expressive communication. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FOLKLORE 530 Topics in Folklore Credits: 1 - 3
The topic will vary with the instructor; may be repeated with different content. Prereq: Jr st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE 535 American Folk and Vernacular Music Credits: 3
An ethnographic, historical examination of immigrant and indigenous "roots" musical genres (blues, hillbilly, powwow, polka, conjunto, etc.) in relation to technological, commercial, artistic, and socio-political forces in American life. Prereq: Jr st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 539 The Folklore of Festivals and Celebrations Credits: 3
Survey of interdisciplinary literature on social/performative folklore aesthetics and environments by in-depth study of three festivals and ceremonies. Required field trips. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE 540 Local Culture and Identity in the Upper Midwest Credits: 3
A web-based course, operating as a series of modules. Each module addresses a different aspect of community life and culture in the upper Midwest, focusing on Wisconsin. Examples include ethnic groups, religious life, vernacular architecture, oral narrarative, music and material culture. Prereq: Jr st or cons inst. All stdts register for disc. 3 cr requires extra contact & project
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
FOLKLORE  560 Folklore in a Digital Age Credits: 3
Explores traditional forms and performances as they emerge in contemporary communication technologies. Surveys scholarly approaches to the topic. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FOLKLORE  630 Seminar on American Folklore Credits: 3
Focuses on American folk and popular culture as it relates to expressive behavior using the work of folklorists, anthropologists, historians and literary scholars. Prereq: A lower level crse in folklore or anthro or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FOLKLORE  639 Field School: Ethnography of Wisconsin Festivals Credits: 6 - 8
A review of key methodological and theoretical approaches for studying festivals, in situ observation of summer festivals and small town folk and ethnic museums, and supervised writing and photographic assignments. Prereq: Cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

FOLKLORE  640 Topics in Ethnographic Textiles Credits: 3
Ethnographic survey of non-western textiles; technological, aesthetic, functional, and historical aspects. Geographical area varies: African, East Asian, Southeast Asian, Ibero-American or Native American textiles. Prereq: DS 430
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE  655 Comparative World Dress Credits: 3
Variations in form, function and meaning of dress in diverse social and cultural contexts; dress as an art form. Prereq: Junior standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FOLKLORE  699 Independent Study in Folklore (Graduate) Credits: 1 - 3
Independent study in an area related to folklore for graduate students. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FOLKLORE  915 Seminar in Ethnomusicology Credits: 3
Topics in ethnomusicology within a cross-cultural framework; melodic typology, scale and tuning systems, mode, rhythm, ornamentation, improvisation techniques, oral and written traditions of composition, notation systems, and function of music society. Prereq: Music 401 or 402, 515
Typically Offered: Occasionally

FOLKLORE  970 Seminar in Folklore Credits: 3
Thorough study of significant folklore topics. Content will vary with each offering. Prereq: Grad st or cons inst
Typically Offered: Occasionally

FRENCH (FRENCH AND ITALIAN)

FRENCH  101 First Semester French Credits: 4
For students with no previous training in the language; oral practice and conversation, grammar, reading, vocabulary building, and study of French and Francophone cultures. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH  102 Second Semester French Credits: 4
Continuation of French 101. Prereq: French 101 or appropriate score on placement exam. Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH  201 French for Speakers of Other Romance Languages Credits: 4
Accelerated development of oral, reading and writing skills up to a level equivalent to that of the end of second semester French (102). Instruction draws on features shared by Romance languages, with focus on distinctions particular to French. No previous knowledge of French is required. Prereq: Italian 204 or 4 years of high school Italian; Spanish 204 or 4 years of high school Spanish; Portuguese 202 or 4 years of high school Portuguese; consent of instructor
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall
FRENCH 203 Third Semester French Credits: 4
Oral practice and conversation, grammar review, reading, vocabulary expansion, creative writing and study of French and Francophone cultures. Prereq: French 102 or appropriate score on placement exam. Open to Freshmen
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

FRENCH 204 Fourth Semester French Credits: 4
Continuation of French 203 with more advanced materials. Prereq: French 203 or appropriate score on placement exam. Open to Fr.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FRENCH 210 Sexuality and Gender in 20th-Century French Literature Credits: 3
This course considers novels, plays, essays, and films (in translation) written by gay and lesbian authors in 20th-century France. It traces developments in narrative and in sexual identity to show how the articulation of sexual difference influenced 20th-century literature and culture. FR210 is an introductory course in an interdisciplinary area of French studies. Taught in English. Prereq: Open to Freshmen
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

FRENCH 211 French Interdisciplinary Studies Credits: 3
An introductory course in an interdisciplinary area of French studies. Taught in English. Prereq: Open to Freshmen
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FRENCH 227 Exploring French: Intermediate-Level Course for Entering Students Credits: 3
Development of oral and written skills, based on reading and discussion of contemporary socio-cultural topics. Prereq: Placement test recommendation. Open to Fr & entering stds only
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

FRENCH 228 Intermediate Language and Culture Credits: 3 - 4
Enhance writing and speaking proficiency through cultural readings on France and the francophone world. Review of grammar and focus on more complex grammatical structures. A required prerequisite for the French major. Prereq: French 204 or 227 or consent of department. Open to Freshmen
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FRENCH 240 Immigration and Expression Credits: 3
Explores debates associated with the colonial and the postcolonial in France and/or other Francophone countries through literature, film, and culture. Taught in English. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FRENCH 248 Ethnic Studies in the French/Francophone World(s) Credits: 3
An introduction to French colonialism in the New World and its effects on African-American, Afro-Creole, Native American, Franco-American, Cajun, and Caribbean diasporan communities in the U.S. through literature, history, and culture. Taught in English. Prereq: Open to Fr
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FRENCH 271 Introduction to Literary Analysis Credits: 3 - 4
An introduction to reading and analyzing literary works, with special emphasis on the development of writing skills in French. The program will concentrate on shorter works from the major genres of French literature, and prepare students for future study of literature. Prereq: French 228 or cons of department. Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

FRENCH 298 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a Cr/N basis. Requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

FRENCH 299 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a lettered basis; requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
FRENCH 301 Practical French Conversation Credits: 1
Open during the fall semester to residents of the French House and non-resident students. Non-residents attend four or five lunches per week at the French House. For more information, consult the department. Prereq: French 203
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FRENCH 302 Practical French Conversation Credits: 1
Open during the spring semester to residents of the French House and non-resident students. Non-residents attend four or five lunches per week at the French House. For more information, consult the department. Prereq: French 203
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

FRENCH 311 Advanced Composition and Conversation Credits: 3
Trains students to write essays on a variety of topics, using different registers of French, and work to correct pronunciation and improve conversation skills. Prereq: French 228
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 312 Advanced Oral and Written Expression: Writing Across the Humanities Credits: 3
Develops students' writing and oral expression at an advanced level through writing and discussion of internet journalism, translation, or creative genres. Prereq: French 228
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 313 Professional Communication and Culture in the Francophone World Credits: 3
Study and analysis of the culture and sociology of professional environments in the French and Francophone worlds, including government, international organizations, NGO's and business. Students develop communication skills through interactive teaching methods in multimedia labs. Prereq: French 228 or 311 or consent of instructor
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 314 Contemporary Issues in Government, Organizations, and Enterprise Credits: 3
Cultural study of contemporary Francophone Africa, focusing on issues in government, organizations and enterprise. Exploration of cultural and professional relations between Francophone Africa and France, the European Union, and the United States. Prereq: French 228 or 311 or 313 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 315 Advanced Interdisciplinary Studies in Professional Communication Credits: 3
In-depth study, from interdisciplinary perspectives, of key aspects of technical French language for the professions and business, together with an exploration of the history, sociology, and culture of professional environments in the French and Francophone worlds. Prereq: French 228, 313 or 314 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 321 Introduction to Medieval, Renaissance, and Early Modern Literature Credits: 3
Introduction to important literary works from the medieval era to the French Revolution. Classes conducted in French. Prereq: French 271
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 322 Introduction to Literature of Modernity Credits: 3
Introduction to important literary works of modernity (from the French Revolution to the twenty-first century). Classes conducted in French. Prereq: French 271
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 325 Visual Culture in French/Francophone Studies Credits: 3
Aspects of French culture as manifested in painting, photography, film or other visual media in relation to literature. Prereq: French 321-322
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 347 Introduction to Medieval, Renaissance, and Early Modern Civilization Credits: 3
An introduction to the political, social, intellectual, artistic and literary development of French culture, from its origins to the French Revolution (1789). Prereq: French 321 or 322
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
FRENCH 348 Modernity Studies  Credits: 3
An introduction to political, social, intellectual, artistic and literary developments in French and Francophone culture, within the time period from the French Revolution to the current era. Prereq: French 271
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 350 Applied French Language Studies  Credits: 1 - 3
A course for prospective French teachers or Second Language Acquisition students on a selected applied language topic.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 365 Topics in French/ Francophone Literature and Culture (in translation)  Credits: 3
Treatment of a broad range of topics in French/ Francophone literature and culture, with interdisciplinary perspectives. Taught in English. Does not count toward the French major. Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 391 French for Reading Knowledge  Credits: 3
Intensive grammar and reading for graduate students and undergraduates with little or no experience in French. Readings from appropriate texts in the humanities, sciences, social sciences. May not be counted toward L&S foreign language requirement. Does not count towards the French major. Prereq: Not open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 420 Topics in French: Study Abroad  Credits: 1 - 6
A course carried with a UW-Madison Study Abroad Program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad program
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 429 Introduction to the Romance Languages  Credits: 3
Introduction to structural similarities and differences apparent in major Romance languages (French, Italian, Portuguese, Spanish) and to their historical developments, with reference to basic linguistic features of each language: phonology, morphology, syntax, and lexicon. Does not count towards French major. Prereq: Span 226 or Portug 226 or French 228 or Ital 311, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 430 Readings in Medieval and Renaissance Literature  Credits: 3
Exploration of a thematic selection of texts from the Middle Ages and the Renaissance. Prereq: French 321 & 322
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 431 Readings in Early Modern Literature  Credits: 3
Exploration of a thematic selection of texts from the Early Modern period. Prereq: French 321 & 322
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 433 Readings in Twentieth and Twenty-First Century Literature  Credits: 3
Exploration of a thematic selection of texts from the twentieth and twenty-first centuries. Prereq: French 321 & 322
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 440 African/ Francophone Film  Credits: 3
Studies the construction of narratives in cinema and literature; teaches to analyze and write about cinema; explores links between cinema and national or regional politics and ideology; examines spectatorship in relation to questions of identity formation. Prereq: French 271
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 449 Francophone Modernity Studies  Credits: 3
Topics in modern Francophone culture and literature with special emphasis on colonialism, slavery, diasporas, postcolonialism, and immigration. Prereq: French 347 or 348
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 451 Medieval, Renaissance, and Early Modern Studies  Credits: 3
A thematic historical survey of culture in pre-Revolutionary (pre-1789) France. Prereq: French 321 or 322
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
FRENCH 461 French/Francophone Literary Studies Across the Centuries Credits: 3
A study of how literature has evolved over the course of French history, in relation to a chosen topic. Prereq: French 321 & 322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 462 French/Francophone Cultural Studies Across the Centuries Credits: 3
A study of how culture has evolved over the course of French history, in relation to a chosen topic. Prereq: French 321 & 322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 465 French/Francophone Film Credits: 3
Representative French-language films will be studied from an esthetic and a cultural perspective. Choice of themes and periods studied will vary, and may range from historical surveys to a close examination of films from a particular time or place. Prereq: French 321 or French 322.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 467 Aspects of Contemporary French Literature Credits: 3
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 472 French/Francophone Literature and Women Credits: 3
A study of literature by and/or about women, including theories of gender, in French and/or Francophone literary culture. Prereq: French 321 & 322
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 550 Advanced Interdisciplinary Studies in Medieval Civilization Credits: 3
An integrated treatment of a specific theme, to be announced by a group of specialists in different fields. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FRENCH 555 Colloquium: Research Possibilities in French Studies Credits: 1
Introductions to the kinds of research conducted in French language and French and Francophone literature and culture by faculty, academic staff, and advanced graduate students. Presenters will describe their research interests and their professional careers. Prereq: Open to first-year Grad stdts & Jr & Sr French majors
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 567 Undergraduate Seminar in French/Francophone Literary Studies Credits: 3
Particular emphasis on discussion, research, and collective preparation of readings, on a topic within French and/or Francophone literary studies. Prereq: One 400-level course in French lit
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 568 Undergraduate Seminar in French/Francophone Cultural Studies Credits: 3
Particular emphasis on discussion, research, and collective preparation of readings, on a topic within French and/or Francophone cultural studies. Prereq: One 400-level course in French lit
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 590 Advanced Phonetics Credits: 3
Advanced study of French sounds, phonetic transcription, practice in pronunciation; required of teaching majors. Prereq: French 228
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 595 Theory and Practice of French/Francophone Drama Credits: 4
Pertinent theory, interpretation of French and/or Francophone drama, practice of dramatic elocution, and performance. Prereq: French 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 615 Grammaire avancée Credits: 3
Advanced course in French grammar and style, with a special focus on various critical and professional applications. For students in the Professional French Masters Program. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
FRENCH 616 Social Responsibility in Contemporary French-Language Professional Writing Credits: 3
Required for Professional French Masters Program students, this interdisciplinary course investigates discourses of social responsibility in the French-speaking professional world and across sectors, in the fields of international development, marketing, management, and administration. By studying how concepts of socially responsible practice are represented in business and professional writing in France, Quebec and Francophone Africa, students will consider how trends in their individual PFMP concentration areas relate to those of their classmates and future colleagues. Prereq: Declared in French Studies master's program or the capstone certificate in French Studies
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

FRENCH 617 Contemporary Skill Set Literature in French Credits: 3
This course examines how contemporary business and professional writing in French portrays professional skill sets for readers in Francophone Europe and North America, and to a lesser extent in Francophone Africa, particularly in the fields of international education, international development, marketing, management, and administration. Prereq: Declared in French Studies masters program or the capstone certificate in French Studies
Typically Offered: Spring, Summer

FRENCH 618 Career Strategies for the French-Speaking World Credits: 2
Students will study published contemporary French-language writing on career strategies for emerging professionals and professionals in transition in Europe, Africa and North America. Prereq: Declared in French Studies masters program or the capstone certificate in French Studies
Typically Offered: Spring

FRENCH 623 Communication orale en situations professionnelles Credits: 3
Professional communication for advanced speakers of French, with a particular focus on intercultural analysis, nonverbal communication, and public speaking. Required for students in the Professional French Masters Program. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 626 Critical Approaches to French Literature Credits: 3
Introduction to critical reading practices and theoretical principles behind them; textual analyses from various genres and periods. Prereq: Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

FRENCH 630 Le Siecle des Lumieres Credits: 3
Prereq: Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 631 Litterature Francaise Du XVIIIe Siecle Credits: 3
Literary and philosophical trends of the Age of Enlightenment with special emphasis on Montesquieu, Voltaire, Diderot, and Rousseau. Prereq: Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 633 Le Roman Au XVIIIe Siecle Credits: 3
Prereq: Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 636 Le Roman Francais 1850-1900 Credits: 3
Etude des romans de Fromentin, Flaubert, Zola, Maupassant, et Huysmans. Prereq: Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 637 La Litterature francaise du XIXe siecle Credits: 3
Study of nineteenth-century literary texts in relation to their historical or cultural contexts or in light of new theoretical approaches. Prereq: Graduate standing or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

FRENCH 639 La Litterature Du XVIIe Siecle Credits: 3
Etude approfondie des grandes oeuvres du XVIIe siecle. Prereq: Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
FRENCH 640 La Litterature Du XVIIe Siecle Credits: 3
Continuation of 639  Prereq:  Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 642 Culture et sociétés dans le monde francophone Credits: 3
Graduate survey of major socio-political, cultural, and economic developments in the major French-speaking regions of the world. Taught in three modules (Europe, Africa, and Canada), the course is required for students in the Professional French Masters Program.  Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 645 La Litterature Francaise du XVle Siecle Credits: 3
Prereq:  Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 646 La Litterature Francaise du XVle Siecle Credits: 3
Continuation of 645  Prereq:  Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 647 Le Roman Francais au XXe Siecle Credits: 3
Prereq:  Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 653 Cinéma français/francophone Credits: 3
The study of French and/or Francophone films in relation to their historical or cultural contexts through close readings and canonical theoretical approaches.  Prereq:  Graduate or professional standing
Typically Offered: Occasionally

FRENCH 657 La Poesie Francaise du XIXe Siecle Credits: 3
Prereq:  Grad st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 665 Introduction aux etudes francophones Credits: 3
Study of literary texts from diverse Francophone cultures (Africa, the Caribbean, Quebec) and the cultural and political dynamics between these texts and these cultures.  Prereq:  Grad st
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 671 La Critique Litteraire Credits: 3
Continuation of 670  Prereq:  Grad st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

FRENCH 681 Senior Honors Thesis Credits: 3
Prereq:  Consent of undergrad advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 682 Senior Honors Thesis Credits: 3
Prereq:  Consent of undergrad advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 691 Thesis Credits: 2
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

FRENCH 692 Thesis Credits: 2
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 698 Directed Study Credits: 1 - 6
Cr/N.  Prereq:  Jr or Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

FRENCH 699 Directed Study Credits: 1 - 6
Prereq:  Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
FRENCH 701 Introduction a L Ancien Francais Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

FRENCH 703 La Litterature Francaise du XIV Et du XV Siecle Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

FRENCH 704 La Litterature Francaise du XIV et du XV Siecle Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

FRENCH 705 La Litterature Francaise des Debuts Jusqu a La Fin du XIII Siecle Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

FRENCH 793 Professional French Masters Program Internship Credits: 2 - 3
Professional internship abroad, in a French-speaking business or organization, in the student's professional field. Limited to students in the Professional French Masters Program and Capstone Certificate of Professional French Studies. Prereq: Limited to Grad St in Professional French Masters Program and Capstone Certificate of Professional French Studies
Typically Offered: Occasionally

FRENCH 799 Independent Study Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Occasionally

FRENCH 804 Interdisciplinary Western European Area Studies Seminar Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

FRENCH 817 Romance Philology Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 820 College Teaching of French Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 821 Issues in Methods of Teaching French and Italian Credits: 1 - 3
Prereq: French/Italian 820; or foreign lang teaching experience
Typically Offered: Occasionally

FRENCH 825 Cours de Grammaire Et de Style Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 826 Cours de Grammaire Et de Style Credits: 3
Continuation of 825. Prereq: Grad st
Typically Offered: Occasionally

FRENCH 901 Seminar-Materials and Methods of Research Credits: 1 - 3
Required for Ph.D. candidates. Prereq: Grad st
Typically Offered: Occasionally

FRENCH 931 Seminar-18th Century Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 932 Seminar-18th Century Credits: 3
Continuation of 931 Prereq: Grad st
Typically Offered: Occasionally
FRENCH 935 Seminar on the 19th Century Novel Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 939 La Litterature Medievale Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 947 Seminar: Questions de Litterature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 948 Seminar: Questions de Litterature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 949 Seminar-Ecrivains Francais du XVIe Siecle Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 951 Seminar on 19th Century French Poetry Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 955 Seminar-Le Theatre Du XX Siecle Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 963 Seminar-Studies in the Romantic Period Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

FRENCH 990 Individual Research Credits: 1 - 12
In connection with the doctoral dissertation. Staff, on consultation with the chairperson. Prereq: Cons of dept
Typically Offered: Occasionally

GENDER AND WOMENS STUDIES

GEN&WS 100 Open House Gender Learning Community Seminar Credits: 1
This seminar is for residents of Open House Gender Learning Community. It addresses various topics of interest
to this community. Prereq: Resident of Open House Gender Learning Community
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 101 Gender, Women, and Cultural Representation Credits: 3
A humanities-oriented analysis of cultural representations of women and men within the social and historical
contexts of race, class, gender and sexuality; engages with a range of traditions and modes of representation
including literature, mass media and popular culture. Prereq: Open to Fr; students may not receive credit for
both Gen & WS 102 and Gen & WS 101
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 102 Gender, Women, and Society in Global Perspective Credits: 3
Global, interdisciplinary, social science-oriented analysis of gender, race, class and sexuality in relationship to
social institutions and movements for social change. Focus on gender and women in institutions such as
education, the economy, the family, law, media, medicine, and politics. Prereq: Open to Fr; students may not
receive credit for both Gen & WS 102 and Gen & WS 101
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GEN&WS 103 Women and Their Bodies in Health and Disease Credits: 3
Basic facts about the structure and functioning of the female body. Attention to the adjustments that organ systems make during physiological events (stress, exercise, eating, menstruation, sexual/reproductive activity, and aging) and during pathological or disease processes. The effects on the body of environmental and psychological factors. Relationships between women patients, health professionals, and available treatment and diagnostic modalities analyzed. Prereq: Open to Fr
L&S Breadth: Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 110 First Year Topics Seminar in Gender, Women and the Humanities Credits: 3
An umbrella course used to offer a variety of special topics seminars for first year undergraduates. Courses using this number employ a humanities approach. The topic is footnoted whenever the course is offered. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 120 First Year Topics Seminar in Gender, Women and Society Credits: 3
An umbrella course used to offer a variety of special topics seminars for first year undergraduates. Courses using this number employ a social science approach. The topic is footnoted whenever the course is offered. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

GEN&WS 134 Women and Gender in World History Credits: 3 - 4
A global (comparative and transnational) survey of women and gender from the ancient world to the modern period. Introduces students to key issues in the history of women and gender, including the historical construction of identities, roles, symbols, and power relationships. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every
Other Spring

GEN&WS 144 Women's Writing Credits: 3
An introduction to literature in English written by women in various periods and places; specific topics will vary. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 200 Introduction to Lesbian, Gay, Bisexual, Transgender and Queer+ Studies Credits: 3 - 4
A multidisciplinary introduction to lesbian, gay, bisexual, transgender, and queer (LGBTQ) studies, including theories of identity formation, different societal interaction with LGBTQ communities, LGBTQ cultures in history, and contemporary legal and political issues. Course materials explore the intersections between LGBTQ identities and other socially marginalized identities, including (but not limited to) those based on race, ethnicity, religion and disability. Prereq: None
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 205 Women in Russian Literature in Translation Credits: 3 - 4
Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 215 Gender and Work in Rural America Credits: 3
Sociological dimensions of men's and women's work in nonmetropolitan areas of the United States. Examines gender divisions of "work" in its fullest sense: paid work in formal and informal economies, self-employment, and nonmarket work such as housework. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 221 Introduction to Black Women's Studies Credits: 3
This course will provide students with an overview of the field of Black women's studies. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEN&WS 222 Introduction to Black Women Writers Credits: 3
An introduction to the writings of Afro-American women from the nineteenth to the twentieth century. Fiction, autobiography, non-fiction prose, and poetry will be read and discussed. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall
GEN&WS 245 Chicana and Latina History Credits: 3
Introduces the cultural, economic, social, and political history of Chicanas and Latinas in the U.S. and focuses on four major themes: contact between different ethnic/racial groups; ideas of nation and nationalism; constructions of identity; and struggles for social justice. Prereq: Open to Fr
Ethnic Studies: Yes  General Education: COM B  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 248 Women in Ethnic American Literature Credits: 3
An introduction to American literature by and about women, written by authors from ethnic groups. Prereq: 6 credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 250 Women in Literature Credits: 3
Works by British and American writers, with emphasis on women writers of the twentieth century; close reading of texts and discussion of trends, themes, and special characteristics of the role of women in literature. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 267 Artistic/Cultural Images of Black Women Credits: 3
Cultural images by and about Black women; feminine creativity in the arts within their historical, cultural, social, and political contexts. Prereq: Open to first year students
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 270 German Women Writers in Translation Credits: 3
Prereq: Open to Fr; not open to stdts who are taking or have taken German 302 or above
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 280 Honors Seminar: Studies in Gender, Sex, and Sexuality Credits: 3
An intensive exploration in the topics and issues central to Gender and Women's Studies. Emphasis will be placed on critical thinking about gender through close readings of texts, classroom discussions, and informal and formal writing. Prereq: Open to freshmen. Open to non-honors students only with consent of instructor
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEN&WS 299 Directed Study Credits: 1 - 3
For highly qualified and motivated students. Prereq: Graded on a lettered basis; requires cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 310 Special Topics in Gender, Women and the Humanities Credits: 1 - 3
Investigation of some specific topic in gender and women's studies related to gender, women and the humanities. Subject differs each semester. Prereq: Women St 101 or 102 & a crse in a related discipline; or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 315 Gender, Race and Colonialism Credits: 3
Investigates how gender and race were socially constructed in cultural encounters between Europeans and "other" peoples in Africa, Asia, and the Americas. Prereq: Gen & WS 101, Gen & WS 102 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 319 Study Abroad Special Topic: Gender, Women and the Humanities Credits: 3 - 4
Provides a gender and women's studies course equivalency for humanities courses taken in UW-Madison study abroad programs that do not equate exactly to an existing gender and women's studies course. Prereq: Enrollment in a UW-Madison study abroad program
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 320 Special Topics in Gender, Women and Society Credits: 1 - 3
Investigation of some specific topic in gender and women's studies related to gender, women and society. Subject differs each semester. Prereq: Women St 101 or 102 & a crse in a related discipline; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
GEN&WS 323 Gender, Race and Class: Women in U.S. History Credits: 3
Historical interplay of racism and sexism in the lives of Black and White women of different class backgrounds in the United States. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

GEN&WS 324 Black Women in America: Reconstruction to the Present Credits: 3
Explores African American women's experience from waning days of slavery to present. Topics include slavery, emancipation, reconstruction, segregation, migration, urban and rural poverty, civil rights, nationalism, feminism and sexual politics. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

GEN&WS 326 Race and Gender in Post-World War II U.S. Society Credits: 3
Assesses how race and gender (as well as socio-economic status, age, sexuality, region, etc.) shaped the experiences and options of African Americans, especially women, in U.S. society from WW II to the present. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

GEN&WS 329 Study Abroad Special Topic: Gender, Women in Society Credits: 3 - 4
Provides a gender and women's studies course equivalency for social science courses taken in UW-Madison study abroad programs that do not equate exactly to an existing gender and women's studies course. Prereq: Enrollment in a UW-Madison study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

GEN&WS 330 Topics in Gender/Class/Race/Ethnicity (Humanities) Credits: 3
Topics in the feminist study of inequality and difference based on class, gender and race/ethnicity, with a humanities emphasis. Prereq: Women St 101 or 102
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

GEN&WS 331 Topics in Gender/Class/Race/Ethnicity (Social Sciences) Credits: 3
Topics in the feminist study of inequality and difference based on class, gender and race/ethnicity, with a social science emphasis. Prereq: Women St 101 or 102
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

GEN&WS 332 Latinas: Self Identity and Social Change Credits: 3
Explores the multiracial and multicultural reality of Latina societies by becoming familiar with the history and cultures of Chicana, Cuban-American, and Puerto Rican women. Interdisciplinary readings in law, journalism, public policy, history, and self-reflective literature. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

GEN&WS 333 Black Feminisms Credits: 3
Uses an interdisciplinary framework to examine the key assumptions, debates, and silences in contemporary black feminist thought. Prereq: Sophomore standing, a Gen&WS course, an AfroAmer course or consent of instructor
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring

GEN&WS 340 Topics in LGBTQ Sexuality Credits: 3
Topics in feminist study of LGBTQ sexualities, considering race, nationality, and time. Prereq: Women St 101 or 102 & a crse in a related discipline, or Women St 200, or cons inst. Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer
GEN&WS 342 Transgender Studies Credits: 3 - 4
Transgender Studies teaches students fluency with basic terms, concepts, and methodologies within the interdisciplinary field of Transgender Studies. Content includes transnational and cultural considerations; contemporary transgender issues in medicine, law, and education; cultural production, art and activism; transgender, feminin, and queer theories. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 343 Queer Bodies Credits: 3
This course centralizes the intersection of LGBTQ identities and dis/ability through various queer bodies which are also inflected by race, class, geographical and national locations. Approaches may also include critical theory about queer bodies and personal narratives. Students will learn a variety of ways to think critically and creatively about the politics of bodily experience, including how those politics have shaped their own embodied lives. Prereq: 3 credits of Gender & Women's Studies; sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 346 Trans/Gender in Historical Perspective Credits: 3 - 4
Throughout recorded history, humans have conceptualized categories of sex and gender in a variety of ways; some have elaborated just two main sex/genders, others have elaborated more than two categories. At the same time, regardless of how a given culture has defined sex and gender and the behaviors and appearances deemed appropriate, humans have always exceeded those definitions. Quite simply, the determination of male and female and any other sex or gender category is neither obvious nor simple: what is sex, what is gender? Do they reside in the body, behavior, psyche, clothing, or social processes such as racialization? To make matters still more complicated, cultural beliefs about sex/gender can be complex and vary greatly across different societies and time periods. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

GEN&WS 351 Gender and Sexuality in the Classical World Credits: 3 - 4
Constructions of gender and sexuality in the classical world through art, literature and archaeology. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 353 Women and Gender in the U.S. to 1870 Credits: 3 - 4
An advanced and comparative study of the roles of gender, class, and race in American history and historiography. Themes include women as agents of social change and as builders of community. Prereq: So st; completion of intro history & women's studies crse preferred
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 354 Women and Gender in the U.S. Since 1870 Credits: 3 - 4
See 520. Prereq: So st; completion of intro history & women's studies crse preferred
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 360 Online Internship in Gender and Women's Studies Credits: 1
This online internship course is designed to provide students with opportunities for learning in ways that connects coursework in gender and women's studies to specific issues in professional community settings within the context of feminist activism. Prereq: A previous course in gender and women's studies
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

GEN&WS 367 Art and Visual Culture: Women of the African Diaspora and Africa Credits: 3
This course focuses on the art and visual culture by or pertaining to women throughout the African Diaspora and Africa. Though the focus is on 10th century art by black women, it will go into visual culture (art objects, photographs, images, dress, culturally-coded representation) concerning black women historically. Prereq: Afro-Amer 242; majors only; So st or cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS 370 Topics in Gender and Disability Credits: 3
Examines the social, cultural, political, and symbolic constructions of the intersecting categories of gender and disability. Prereq: 3 credits of GEN&WS coursework
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
GEN&WS 371 Disability and Gender in Film Credits: 3
Interdisciplinary analysis of the films about disability, stigmatized bodies, and their gendered constructions using feminist and disability studies methods. Prereq: None
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEN&WS 372 Visualizing Bodies Credits: 3
Focuses on the intersections of the visual images of bodies, ethics, and politics from global and feminist perspectives. Students will learn critical approaches to visual media in feminist disability studies to analyze the images of bodies focusing on race, gender, disability, religion, sexuality, and other markers of difference. Prereq: 3 credit hours in Gen&WS or consent of instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 373 Gender & the Cultural Politics of Illness Credits: 3
Considers how illnesses exist not only as biomedical conditions but also as occasions for political activism, artistic creation, social change, and community formation. We will explore these issues in relationship to notable modern illnesses including HIV/AIDS, breast cancer, depression, multiple chemical sensitivities, and chronic fatigue syndrome. We will examine how illness intersects with embodied social identities such as gender, race, sexuality, dis/ability, ethnicity, class, and citizenship status. Course materials will include autobiographical and fictional writings, documentary and feature films, cultural and social theories, visual art, graphic novels, and digital media. Prereq:
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

GEN&WS 392 Women in History Credits: 3 - 4
An examination of the cultural, social, economic, and political activities of women. Geographical or chronological emphasis varies with instructor. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 414 Gender, Performance, and Sexuality Credits: 3
Explores the ways in which we perform sexuality and gender. Covers issues related to performance theory, social constructionism, gender socialization, and philosophy, while exploring how gender and sexuality are constructed, enacted, and communicated in various contexts. Prereq: Gen&WS 101, Gen&WS 102 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

GEN&WS 415 Introduction to Contemporary Feminist Theatre and Criticism Credits: 3
Introduction to the history, literature and theory of feminist theatre and of feminist criticism of mainstream theatre in the United States from 1960 to the present. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEN&WS 418 Gender, Sexuality, and the Media Credits: 3
This course examines images of gender and sexuality in the media, with a focus on contemporary media in the U.S. Using theories from cultural studies, film and media studies, gender studies, and communication we will explore different processes and practices of gender and sexuality. We will look at the way that gender and sexuality are constructed through social, cultural, and economic forces, and the way that these identities intersect with other social identities such as race, ethnicity, and class. Through readings and class discussions we will consider the way that media impact our understanding of feminism and post-feminism, violence, celebrity, consumer culture, subcultures and activism
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 419 Gender and Language Credits: 3
Examines taken-for-granted understandings of language and gender. Students produce analytic assignments and research projects, drawing on interdisciplinary theories and methods to address the representation and enactment of gender in talk, writing, and/or literary works. Students who have taken English 341 prior to fall 2014 may not enroll in this course. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 420 Women in Cross-Societal Perspective Credits: 3
An interdisciplinary examination of the position of women in a variety of social contexts; an analysis of the society-specific and universal social forces that determine the position of women; an investigation of the change in women’s status and role worldwide and an inquiry into the causes of this change. Prereq: Woman-related course; a soc sci course; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GEN&WS 422 Women and the Law Credits: 3
Legal system, laws, and proposed legislation that have specific impact on the lives of women. Topics investigated in both the social and legal contexts. Prereq: A woman-related course and a soc sci course; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 424 Women's International Human Rights Credits: 3
An examination of the contemporary development of international human rights and women's rights, and the fundamental contradiction between them. Analyzes core themes and issues of women's international human rights. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS 425 Chicana and Latina Feminisms, Arts, and Media Credits: 3
An introduction to Chicana and Latina history and feminist activism, writing, and creative expression. Surveys Chicana/Latina participation and representation in society, the arts, the media, and popular culture. Prereq: Chic/Std 101 or women's studies intro course or Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 426 Women and Grassroots Politics Across the Globe Credits: 3
An introduction to the range of women's and feminist grassroots activism across the globe. Focuses on the complexities of individual and community service, learning and scholarship, and women's roles in facilitating social change. Prereq: Gen&WS 101, Gen&WS 102, or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

GEN&WS 427 Global Feminisms Credits: 3
Explores feminism and gender across cultural contexts with emphasis on the Global South. Includes theories for the study of women and gender in foreign contexts, comparison of gender relations and feminisms across countries, and analysis of national and transnational feminist organizing. Prereq: A Gender and Women's Studies course or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 431 Childbirth in the United States Credits: 3
American women's childbirth experiences from the colonial period to the present. Childbirth as a cultural as well as a biological event. Basic physiological information for understanding and evaluating changing approaches to pregnancy and childbirth. Prereq: Women St 103 or 430 or equiv; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS 437 American Indian Women Credits: 3
Examines and interprets the roles of American Indian women in traditional societies, and in contemporary North America. Prereq: 1 cr in Amer Ind St, Anthro 314 or Women St 223, 101, or 102
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS 441 Contemporary Feminist Theories Credits: 3
Contemporary theoretical positions and debates about feminisms in the humanities and social sciences. Prereq: 3 credits of GEN&WS and sophomore standing.
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 442 Lesbian Culture Credits: 3
Exploration of lesbian culture and history. Focuses on the history, meanings, and representations of relationships among women; critically analyzes the concepts of lesbian perspective, theory, aesthetic, and sensibility. Prereq: So st & Women St 101 or 102
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
GEN&WS 443 Anthropology by Women Credits: 3
Contributions of women anthropologists to feminist and anthropological theories and research methods. Field research and gender. Current debates in women's studies and anthropology in light of recent research on women and gender in cross-cultural perspective. Prereq: So st; one women st crse or one anthro crse or cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEN&WS 445 The Body in Theory Credits: 3
Explores a broad range of contemporary theories concerned with bodies and power. Intersections with gender, race, class, dis/ability, sexuality and nation. Prereq: Jr st and 3 cr of intmed or adv Gen & WS or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEN&WS 449 Special Topics in Feminism and Social and Cultural Theory Credits: 3
Investigation of specific theorists, themes, problems, or eras in feminism and social theory. Subject differs each semester. Prereq: So st and 3 cr of women st; or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEN&WS 450 Brazilian Women Writers Credits: 3
A survey of representative writing by contemporary Brazilian women writers in relation to representations of nationality, race, class, ethnicity, gender and sexualities. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEN&WS 460 Carmen Miranda Credits: 3
This course examines the work, representation and interpretation of Carmen Miranda from her early days as a radio star in Brazil to a film actress and entertainer in Hollywood in the 1940s and 50s. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEN&WS 463 Race and Sexuality in American Literature Credits: 3
Explores the intersection between race and sexuality in American literature with an emphasis on sex/gender difference, feminism, transgenderism, and nationalism. Focuses on the nature of literature as advocacy, with an emphasis on Asian-American issues. Students who have taken English 654 prior to fall 2014 may not enroll in this course. Prereq: Sophomore standing
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEN&WS 464 Asian American Women Writers Credits: 3
A study of major texts by Asian American women writers. Prereq: 6 credits of introductory literature or consent of instructor
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEN&WS 467 Women and Politics in Popular Culture and Folklore Credits: 3
How popular culture and folklore have been used by women as rhetorical tools that promote deliberation and debate, broaden political engagement, and advance particular social identities. Global content, with examples from around the world. Prereq: A Gender and Women's Studies course, or a Folklore course or Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEN&WS 468 Feminism, Folklore and Comparative Literature Credits: 3
Explores feminism, folklore and comparative literature from a variety of perspectives drawing from scholarship in feminist philosophy, folklore, anthropology, critical cultural studies, and postcolonial theory. Prereq: 3 credits of Gen&WS, or 3 Credits of Folklore, or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEN&WS 469 Women and Politics Credits: 3 - 4
Changing political roles, status, attitudes, and behaviors of women in contemporary society and of the political implications of changing female/male relationships. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
**GEN&WS 472 Women in Turkish Society** Credits: 3
Interdisciplinary analysis of women's issues in Turkish society from the Ottoman era imperial harem to Islamist feminist movements in the secular Republic of Turkey today. Emphasis on the critical use of a comprehensive set of disciplinary lenses. Prereq: So st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

**GEN&WS 477 Feminism and Sociological Theory** Credits: 3
This course reviews the ways that feminist critiques have reshaped social theory since 1960. It examines the ways that feminist theorists have reconceptualized classical sociological problems and how this has influenced the ways research in conducted. Prereq: Soc 475 or any Gender & Women's Studies course carrying "S" or "Z" or "Y" breadth category.
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEN&WS 519 Sexuality, Modernity and Social Change** Credits: 3
A history of sexuality approach to a period of major social, economic, and political change in US history, 1880-1930; medical, legal, and popular discourses shaping urbanization, reform, nationalism and colonialism. Prereq: Jr st & cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEN&WS 522 Psychology of Women** Credits: 3
Examination of theories and research on the psychology of women. Explores topics such as the biological and cultural bases of the psychology of women; psychological aspects of female sexuality and reproduction; violence against women; female achievement and power; lifestyle choices of women; and women and mental health. Prereq: So st; Women St 102, 103 or 430; & a course in psych; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEN&WS 524 The Medical History of Sex and Sexuality** Credits: 3
Examines the changing place of medicine and scientific authority in public and private sexual lives. Highlights the role of medicine in defining appropriate sexual behavior, understanding the cause of sexual deviance, and treating sexual problems and diseases. Prereq: Prev history (incl med hist & hist sci) crse preferred
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**GEN&WS 530 Biology and Gender** Credits: 3
Examines the theories and methodologies of the relevant research areas in biology and animal behavior that underlie biological determinist theories of gender and gender differences, and explores alternative approaches, theoretical constructs and interpretations. Prereq: Womens St 103 or cons inst & Jr or Sr st
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEN&WS 531 Women and Health in American History** Credits: 3
Women as patients and as health professionals in America from the colonial period to the present. Prereq: Jr st & cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEN&WS 532 The History of the (American) Body** Credits: 3
This course demonstrates that human bodies have social and cultural histories. It will highlight the social values placed on different bodies, the changing social expectations bodies create, and the role of science and medicine in creating the cultural meanings of bodies. Prereq: Women St 103 or other women's studies crse required; prev hist (incl med hist & hist sci) crse preferred
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**GEN&WS 533 Special Topics in Women and Health** Credits: 3
Examination in depth of specific topics in the area of women's health. Critical reading of scientific literature and exploration of relevant biomedical issues in social, economic and cultural contexts. Prereq: Women St 103 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
GEN&WS 534 Gender, Sexuality, and Reproduction: Public Health Perspectives Credits: 3
This course explores several theoretical lenses, disciplinary approaches, and substantive topical areas relating to reproductive and sexual health. We will begin the course by investigating the development of "sexual health" as a phenomenon in public health research, policy, and programs looking back to feminist responses to population control policies of the 1970s. The subsequent weeks of the semester will cover substantive topical areas in the field (e.g., adolescent sexual development, contraception, and HIV/AIDS). Prereq: GWS majors or certificate students and must have taken GWS 101, 102, or 103 or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEN&WS 535 Women's Global Health and Human Rights Credits: 3
This course will take a human rights approach to global women's health to provide an overview of health issues within the context of a woman's life cycle. It will pay special attention to the socio-cultural and economic factors that play a role in determining women's access to quality basic health care. Prereq: GWS 103 or another global health course
L&S Breadth: Biological or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS 545 Feminist Theory and Women's Writing in English Credits: 3
Subject will vary. Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 547 Theorizing Intersectionality Credits: 3
The aim of this course is to critically examine important issues, questions, and debates regarding intersectionality or the notion that race, gender, and sexual identity gain meaning from each other. It is interdisciplinary in its approach. Course materials include texts, films, and other multimedia resources drawn from an array of disciplines including sociology, critical race theory, history, political theory, and cultural studies. Prereq: One of the following: GEN&WS 333, GEN&WS 441, GEN&WS 445, GEN&WS 545, GEN&WS 477, POLI SCI 517, POLI SCI 519 or consent of instructor
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

GEN&WS 550 Gender and Education Credits: 3
The impact of gender on educational performance and opportunity and the problems of integrating family and alternative lifestyle needs into educational policy and planning. Prereq: Jr st and background in social sciences or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 601 Sociology of Work, Family, and Gender Credits: 3
Examines the social issues and forces involved in the intersection of work, family, and gender. Considers how and why men's and women's experiences at work and at home differ, and how experiences in one realm affect experiences in the other. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or Gender & Women's Studies 102
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 611 Gender, Science and Technology Credits: 3
Examination of issues and theories in gender and science. Topics include historical and contemporary studies of technoscientific and medical constructions of sex/gender differences; feminist studies of science, technology, and medicine; proposals of new epistemologies. Prereq: Junior standing and one of Soc 475, G&WS 441, G&WS 445, or G&WS 477, or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 624 African American Women's Activism (19th & 20th Centuries) Credits: 3
Examines Black women's struggles for racial justice; reconsiders conventional notions of leadership, politics and protest. Topics include abolitionism, anti-lynching campaigns, woman suffrage, labor movement, club movement, cultural expressions, civil rights protest, Black feminism/womanism, poverty and welfare rights, environmental racism, etc. Prereq: So st; instr permission required
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS 625 Gender, Race and the Civil Rights Movement Credits: 3
This course focuses on the emerging field of gender studies in the scholarship on the post-World War II civil rights movement in the United States. Prereq: Jr st; inst permission required
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GEN&WS  640 Capstone Seminar in Gender and Women's Studies  Credits: 3
Serves as the capstone, synthesizing seminar experience for Gender and Women's Studies majors. Students focus on the major contributions of gender and women's studies scholarship, hone their interdisciplinary skills, and apply their feminist theory knowledge. Course varies thematically each semester. Prereq: Senior standing, a Gen&WS theory course (GEN&WS 333, 440, 441, 445, 449, 477, 545, or 547), Gender and Women's Studies major & consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS  642 Advanced Seminar in LGBT Studies (LGBT Studies Capstone)  Credits: 3
Capstone for LGBT studies certificate; culminates certificate work through advanced interdisciplinary readings, analysis and discussion in LGBT studies and completion of a research project. Prereq: Declared LGBT studies cert; Women St/Inter-LS 200; or Women St 340; or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS  643 Women and Politics in a Global Context  Credits: 3 - 4
Examines in a global comparative context what has facilitated and held back women's political representation and the implications of women's exclusions from public life. It examines the consequences of unequal political representation.
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEN&WS  644 International Development and Gender  Credits: 3
In addition to reviewing gender-within-development theory and practice, this course examines specific gender issues including social status and roles, productive and reproductive work, access to resources, identity and citizenship, empowerment, and intersection of race, class, and ethnicity with gender. Prereq: Grad or Sr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS  660 Internship in Gender and Women's Studies  Credits: 6
The internship program is designed to provide students with opportunities for learning and working in organizations in ways that connect their coursework in gender and women's studies to specific issues in community settings. Prereq: Sr st; women's studies major; & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS  661 Global Internship in Gender and Women's Studies  Credits: 1 - 6
Internship opportunity for learning and working abroad. Connects coursework in gender and women's studies to specific community organizations, educational projects, civic institutions and related missions and issues in selected countries. Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

GEN&WS  677 Critical and Theoretical Perspectives in Black Women's Writings  Credits: 3
Analyses and interpretations of literary works by black women writers through historical, philosophical, political, feminist, and other contemporary critical methods. Prereq: Undergrads: 2 crses in Afro-Amer lit above intro level, or equiv in another dept of lit. No prereq for Grads
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEN&WS  679 Visual Culture, Gender and Critical Race Theory  Credits: 3
Examines tensions between visual and verbal representations that variably construct and negotiate power relations in racialized human experience. Prereq: 3 crses at 300 level or above in any one of the following areas: Afro-Amer studies; art; art hist; com arts; curric & instr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEN&WS  681 Senior Honors Thesis I  Credits: 3
Research and preparation for completing the senior honors capstone experience carried out under the supervision of an advisor in the women's studies program. Prereq: Open to honors majors in women's studies & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS  682 Senior Honors Thesis II  Credits: 3
Completion of the senior honors capstone project begun in Gender and Women's Studies 681 carried out under the supervision of an advisor in the women's studies program. Prereq: GEN&WS 681 & consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
GEN&WS 691 Senior Thesis I Credits: 2 - 3
Research and preparation for the writing of a senior thesis. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 692 Senior Thesis II Credits: 2 - 3
Senior thesis. Prereq: Women St 691 and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 699 Directed Study Credits: 1 - 6
Graded on lettered basis. Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEN&WS 720 Special Topics in Gender and Women's Studies Credits: 1 - 3
Advanced level investigation of some specific topic in gender and women's studies. Prereq: Cons inst
Typically Offered: Occasionally

GEN&WS 732 Psychology of Women Credits: 3
This course covers research and theory in psychology of women. Topics include nonsexist research methods, psychological gender differences, theories of moral development, women of color, mental health and feminist therapy, rape, sexual harassment, and public policy issues. Prereq: Grad st & cons inst
Typically Offered: Occasionally

GEN&WS 735 Health Promotion and Disease Prevention for Women Across the Lifespan Credits: 3
Identification of health concerns for women, recognizing differences among age, socioeconomic, and ethnic groups; synthesis of biophysiological, psychosocial, and cultural influences of such health concerns; analysis and proposal of interventions to promote overall health and to prevent problems among women. Prereq: Grad st and a course in research design or cons inst
Typically Offered: Occasionally

GEN&WS 737 Feminist Theory and Criticism Credits: 3
Feminist theory, with an emphasis on literary and cultural theory and criticism in English. Prereq: Graduate standing
Typically Offered: Occasionally

GEN&WS 760 Sex/Gender-Related Issues in Curriculum and Instruction Credits: 3
A poststructural feminist analysis of educational discourse and practice; examines selected sex/gender issues in curriculum and instruction; explores some implications for classroom teaching of the complex interrelationships between sex/gender, race, social class, sexuality, and ability/disability. Prereq: Cons inst
Typically Offered: Occasionally

GEN&WS 790 Research & Thesis: Master's and Professional Level Credits: 1 - 6
Research and thesis writing for students at the Master's and professional level. Prereq: Graduate student standing and consent of the instructor
Typically Offered: Fall, Spring

GEN&WS 799 Independent Research at the Master's and Professional Level Credits: 1 - 3
Independent research for master's or professional level graduate students. Prereq: Graduate student and consent of the instructor
Typically Offered: Occasionally

GEN&WS 805 Gender Issues in International Educational Policy Credits: 3
Exploration and analysis of recent debates related to gender issues in international educational policy, including the intersection of education and demographic processes, the play of history and culture, and the social construction of gender. Prereq: Grad st or cons inst
Typically Offered: Occasionally

GEN&WS 880 Proseminar: Graduate Study in Gender and Women's Studies Credits: 3
Introduces new graduate students to the breadth of scholarship in Gender and Women's Studies. It also develops particular skills (critical reading, critical writing and basic research) important to graduate level scholarship. Prereq: Grad st
Typically Offered: Fall
GEN&WS 900 Approaches to Research in Women's Studies/Gender Studies Credits: 3
Transdisciplinary approaches to women's studies/gender studies. Emphasizes theoretical and methodological issues, the nature of interdisciplinary work, and the relationship to traditional disciplines, with an international and multicultural focus. Prereq: Grad St
Typically Offered: Occasionally

GEN&WS 904 Sociological Perspectives on Gender Credits: 3
Advanced topics in the analysis of gender relations in society. Prereq: Grad st
Typically Offered: Occasionally

GEN&WS 920 Anthropology of Gender Credits: 3
Theoretical and ethnographic approaches to the anthropology of gender, focusing on current works. Topics include sexual inequality, research methods, gender and history, gender and ethnographic writing, cultural constructions of masculinity, sexuality, and gender studies and anthropological theory. Prereq: Grad st
L&S Level: Advanced Typically Offered: Occasionally

GEN&WS 933 Feminist Political Theory Credits: 3
Focuses on how specific schools of feminist thought redefine the political, spanning historical and contemporary feminist political theory. Prereq: Grad St
Typically Offered: Fall, Spring, Summer

GEN&WS 938 History of Sexuality Credits: 3
Using sexuality as a category of historical analysis, examines historiographical, methodological, and theoretical contributions to understanding all aspects of the past. Prereq: Sr st or Grad st, & cons inst
Typically Offered: Occasionally

GEN&WS 950 Seminar: Topics in Gender and Women's Studies Credits: 3
Research seminar on specific topics in gender and women's studies. Prereq: Grad st
Typically Offered: Fall, Spring

GEN&WS 990 Research & Thesis Credits: 1 - 6
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring

GEN&WS 999 Independent Research Credits: 1 - 3
Prereq: Grad st, 3 cred in Gen & WS and cons inst
Typically Offered: Occasionally

GEOGRAPHY

GEOG 101 Introduction to Human Geography Credits: 4
Human geographers explore socio-spatial relations, processes and representations of the world in which we live. This course engages economic, political, urban, socio-cultural and environmental geographic perspectives to investigate patterns and processes that have come to be associated with 'globalization'. Prereq: Open to Fr
General Education: COM B L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

GEOG 104 Introduction to Human Geography Credits: 3
Human geographers explore socio-spatial relations, processes and representations of the world in which we live. This course engages economic, political, urban, socio-cultural and environmental geographic perspectives to investigate patterns and processes that have come to be associated with 'globalization'. This course does not carry Com-B credit. Prereq: Open to Fr. Stdts cannot receive cr for both Geog 101 & 104
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 120 Introduction to the Earth System Credits: 3
Introduces students to how the Earth system works and what makes Earth livable. Through this course you will gain a deeper appreciation for how the atmosphere, oceans, life, and earth's surface interact to shape our local, regional and global landscapes. Many students take this course to fulfill their physical science requirement. Others use it as a gateway to majors and careers in Geography, Environmental Studies, and Environmental Science. Prereq: Not open to students with credit for GEOG/ENVIR ST 127
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
GEOG 121 Atmospheric Environment and Society Credits: 2
Changing interactions between humans, other animals and plants, and the atmospheric environment, both in time and space. Prereq: Open to Fr
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 127 Physical Systems of the Environment Credits: 5
Climatic regimes, landforms, soils, waters and life forms at the earth's surface in terms of energy-transforming processes, locational patterns, and changes through time. Prereq: Open to Freshmen & not open to those with Geo 120, 123, 124, or 125 credit or ILS 132 credit
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 139 Living in the Global Environment: An Introduction to People-Environment Geography Credits: 3 - 4
This course provides an exploration of the global and local nature of environmental problems facing us, including issues of climate change, food, energy, economic globalization, deforestation and land use change, biodiversity loss, resource scarcity and access, environmental justice, and population. Through group and individual work, this course considers how we should analyze and act on environmental problems as we confront the apparently daunting scale of such issues. The theme of this course is that what appear to be single global environmental problems are actually composed of many smaller context-specific and place dependent problems or conflicts. Through an interdisciplinary and geogra
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 170 Our Digital Globe: An Overview of GIScience and its Technology Credits: 3
Non-specialist course providing an overview of the collection, representation and use of geospatial data. Introduces students to geospatial technologies like GPS, Google Earth, satellite imagine, and GIS, and provides a critical understanding of the strengths and limitations of spatial representations (e.g., maps, images). Prereq: None
L&S Breadth: Physical Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 198 Directed Study Credits: 1 - 2
Prereq: Open to Fr & So. Graded on a Cr/N basis; requires cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 199 Directed Study Credits: 1 - 2
Prereq: Open to Fr & So. Graded on a lettered basis; requires cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 230 Soil: Ecosystem and Resource Credits: 3
Soils are fundamental to ecosystem science. A systems approach is used to investigate how soils look and function. Topics investigated include soil structure, biology, water, fertility, and taxonomy as well as the human impact on the soil environment. Prereq: Not open to students with credits in Soil Sci 301
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 244 Introduction to Southeast Asia: Vietnam to the Philippines Credits: 4
Southeast Asian history, religion, folklore and literatures, educational systems, and politics from the early classical states to contemporary social, literary, and political developments. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 252 The Civilizations of India-Modern Period Credits: 4
Contemporary India society as a joint product of the classical heritage and world-wide movements toward nationalism; social and economic development. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOG 253 Russia: An Interdisciplinary Survey Credits: 4
Comprehensive interdisciplinary survey of Russian civilization from its beginnings through the present day. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
GEOG 254 Eastern Europe: An Interdisciplinary Survey Credits: 4
Comprehensive interdisciplinary survey of East European culture, society, politics, and literature from its beginnings to the present day. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 260 Latin America: An Introduction Credits: 3 - 4
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 277 Africa: An Introductory Survey Credits: 4
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 301 Geography of Social Organization Credits: 3
Culture, culture group, ethnicity, communication, and allied concepts as these relate to cultural geography.
Prereq: Not open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 302 Economic Geography: Locational Behavior Credits: 4
Classic location theory with modern extensions. Examination of theoretical statements and selected empirical examples. Principles of economic regionalization and network analysis with emphasis on spatial implications of the economic development process. Prereq: Soph st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 305 Introduction to the City Credits: 3 - 4
Analysis of the distributions of cities, their functions, character and relationships with their surrounding regions, and the areal patterns within cities; the spatial variation of population, economic activity, and land uses. Prereq: Soph st; qualified Fr admitted with cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOG 309 People, Land and Food: Comparative Study of Agriculture Systems Credits: 3
Introduction to how and why humans have transformed natural landscapes around the world, including tropical deforestation. Exploration of different agricultural systems, and topics such as food security, land scarcity, bioenergy and the impacts of food production on the environment. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 318 Introduction to Geopolitics Credits: 3
Introduction to the contemporary study of geopolitics, featuring the main concepts and research themes encountered in this field. Examine the formation of geopolitical images of the world, where these images come from, and how they have shaped our thinking and politics over time. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOG 319 Environmental Evaluation and Adaptation Credits: 3
The study of how human beings make sense of geographic reality; how they make worlds out of environments. Prereq: Soph st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 320 Geomorphology Credits: 3
Principles and analysis of geomorphic processes and resulting land forms. Field trip. Prereq: One of the following: Geosci 100, 101, 106, 109, 204, Geog 120, 127
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
GEOG 321 Climatology Credits: 3
Elements and controls of climate and the distribution of world climates. Emphasis on regional dynamic climatology. Prereq: Geog 120, 121, 125, 127 or ILS 132 or Meteor 100 or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

GEOG 322 Climate Change Credits: 3
This is a calculus-based treatment of climate system physics and the mechanisms of modern-day anthropogenic climate change. By the end of this course, students will understand: a. How solar radiation and rotating fluid dynamics determine the basic climate state; b. Mechanisms of natural variability and change in climate; c. Why anthropogenic climate change is occurring; and d. Which scientific uncertainties are most important to estimates of 21st century change. Prereq: PHYS 103, 201 or 207; and MATH 217, 221 or 275. Not open to students who have enrolled in ATM OCN 425
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

GEOG 325 Analysis of the Physical Environment Credits: 4
Selected associations of natural and human environments illustrative of the broad principles of physical geography. Practical application of data collection and the use of laboratory and field methods to Wisconsin examples employing quantitative and nonquantitative analytical methods; field trips; lab section. Prereq: Any intro crse in phy geog or phy geol or meteor or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 326 Landforms-Regions Credits: 3
Emphasis on natural and human processes that control the morphology of the land and its waterways. When taught by Knox, major emphasis on surface water hydrology, erosion, sedimentation, and physical characteristics of streams and rivers. Prereq: Intro phy geog or phy geosci crse, or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 329 Landforms and Landscapes of North America Credits: 3
Regional variation of landforms and physical landscapes in North America; processes and forms that give character to physiographic regions. Prereq: Geog 120 or 127 or Geol 100 or 101 or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 331 Climatic Environments of the Past Credits: 3
Climatic change at timescales from the last 1,000,000 years to the last 1000 years. Examines how climate variability arises from interplay between external forcings, feedbacks within the earth system, and (more recently) human activity. Prereq: Atm Ocn/Geog/Envir St 121, or Geog 120, 123, 124 or 127 or Atm Ocn 100
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 332 Global Warming: Science and Impacts Credits: 3
Climate change is underway and will continue into the foreseeable future. This course offers a fundamental understanding of how and why global warming is happening, and what to expect in the future. Together, we will investigate and discuss the evidence for change, the science that explains these observations, predicted impacts on humans and ecosystems, and the societal debate over proposed solutions. Prereq: Geog/IES 120 or 127 or Atm Ocn 100 or equivalent recommended. Freshmen permitted only with consent of instructor
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 333 Nature, Power and Society Credits: 3
Explores the links between nature, power and society in today's world. The course considers the complex relationships between humans and the earth's resources, including food, energy, physical materials, water, biota, and landscapes; it considers issues linked to population and scarcity, resource tenure, green consumerism, political economy, environmental ethics, risks and hazards, political ecology, and environmental justice. Prereq: Sophomore standing. Not open to students who took Geog/Env 139 in 2010-11, 2011-12 or 2012-13.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOG 334 Environmental Biogeography Credits: 3
This course will explore how physical and biological factors affect the distribution of terrestrial biomes, ecosystem types, and biodiversity; as well as the role of disturbance and recent human activities on differences in past and modern day species distributions. Prereq: Geog 120, 127 or consent of instructor
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
GEOG 339 Environmental Conservation Credits: 4
Examines major environmental conservation approaches in the U.S. and developing countries and how they are influenced by sociopolitical factors, cultural values and scientific understandings of nature. Historical and contemporary cases are explored with emphasis on biodiversity and climate change issues. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEOG 340 World Regions in Global Context Credits: 3
Survey of development and change within each of the world¿s regions (e.g., Africa, Southeast Asia). Attention devoted to environment and society; history, economy, and demographic change; culture and politics; future challenges; key actors. Online course. Prereq: Sophomore standing; Open to freshmen with consent of instructor. Not open to students who have received credit for Geog 140
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 342 Geography of Wisconsin Credits: 3
Overview of the physical and human geography of Wisconsin, with an emphasis on the physical, historical, and cultural processes that shaped the Badger State. Prereq: Sophomore standing
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 344 The American West Credits: 3
Regional geography of Western United States: Natural and human characteristics, landscape features, land use issues, perception of area as region. Prereq: Not open to Freshmen
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 348 Latin America Credits: 4
A topical and historical survey of the cultural ecology and human geography of Middle America and South America. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 349 Europe Credits: 3
A topical overview of people-environment interaction, migration, culture, urbanization, political organization and integration. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEOG 353 Russia and the NIS-Topical Analysis Credits: 3
Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

GEOG 355 Africa, South of the Sahara Credits: 3
Physical and human distributions and interrelationships, with emphasis on the spatial processes and patterns of modernization. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 358 Human Geography of Southeast Asia Credits: 3
This survey course is designed to introduce intermediate undergraduate students to the Human Geography of Southeast Asia, including the basic geography and history of the region, important political and theoretical issues, and policies and positionings of relevance for understanding the spatiality of the region, including the ways that ethnicity and indigeneity are playing out in Southeast Asia and amongst Southeast Asians in the USA. Prereq: Sophomore standing
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 359 Australia: Environment and Society Credits: 3
An introduction to the human and environmental geography of Australia. Australia is a settler country, the scene of indigenous genocide, a former English colony, a mythical unknown, a biophysical puzzle, home to a startling diversity of life, a cradle of modern democracy, and a powerful industrial economy with a rich resource base. It thus serves in many ways as a mirror for the US - even matching the US roughly in size, if not in population. The two countries share many elements of a common history and biogeography and yet the human and environmental geographies of the two countries have traced very different paths into the modern world. This course provides a survey of Australian geology.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring
**GEOG 360 Quantitative Methods in Geographical Analysis** Credits: 4  
Application of descriptive and inferential statistics to geographical problems. Prereq: Sophomore completion of QRA  
General Education: QR-B  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**GEOG 370 Introduction to Cartography** Credits: 4  
A broad introduction to cartography emphasizing the theory and practice of map-making. Topics include the basics in mapping (e.g., scale, spatial reference systems, projections), data acquisition, key techniques for thematic mapping, and principles of cartographic abstraction and design. Prereq: Sophomore standing or consent of instructor  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

**GEOG 371 Introduction to Environmental Remote Sensing** Credits: 3  
Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to study the environment. Includes physical processes of electromagnetic radiation, data types and sensing capabilities, methods for interpretation, analysis and mapping, and applications. Prereq: Math 114 & Sophomore standing  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

**GEOG 372 Intermediate Environmental Remote Sensing** Credits: 3  
Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to remote sensing of the environment. Includes transforms, image correction, classification algorithms and change detection, with emphasis on applications for land use planning and natural resource management. Prereq: Envir St 301 or consent of instructor, sophomore standing  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Every Other Spring

**GEOG 377 An Introduction to Geographic Information Systems** Credits: 4  
Design, implementation and use of automated procedures for storage, analysis and display of spatial information. Covers data bases, information manipulation and display techniques, software systems and management issues. Case studies. Meets with Civil & Environmental Engineering 357. Prereq: Sophomore standing  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

**GEOG 378 Introduction to Geocomputing** Credits: 4  
Introduction to scripting for Geographic Information Science. Geoprocessing with open-source GIS utilities. Phython scripting with ArcGIS and open-source libraries. Prereq: Geog 377 or equivalent (may be taken concurrently)  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

**GEOG 401 Seminar** Credits: 3  
Exploration and analysis of a topic in human geography, including themes involving location analysis, regional and global studies, space and place, religion and morality, and people-environment linkages. Prereq: Appropriate intermediate level course, or cons inst  
L&S Breadth: Social Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

**GEOG 420 Glacial and Pleistocene Geology** Credits: 3  
Principles, characteristics and work of glaciers; events of the Pleistocene. Field trip. Prereq: Geosci 100, 101, 106 or 109 or Geog 120  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

**GEOG 434 People, Wildlife and Landscapes** Credits: 3  
This course explores the relationship between humans and wildlife amidst diverse landscapes, both historic and contemporary, tropical and temperate. We study how humans shape wild animal populations by modifying physical environments, and by hunting, domesticating and introducing species. Prereq: Geog/Envir St 339  
L&S Breadth: Social Science  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring
GEOG 439 US Environmental Policy and Regulation Credits: 3 - 4
This course covers a broad cross-section of American environmental policy by focusing on specific statutes and policy arenas. In this course we will survey the basic elements of American environmental policy and regulation with a particular focus on the specific people, sites and scales at which environmental decision-making happens through primary-source case material. Understanding environmental outcomes in a complex society depends on observing both the structure of regulations and the geographic and social context in which such regulations emerge. This course will maintain a dual focus on (a) the legal and regulatory aspects of environmental regulation and (b) the specific geographic an
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOG 460 American Environmental History Credits: 4
Survey of interactions among people and natural environments from before European colonization to present. Equal attention to problems of ecological change, human ideas, and uses of nature and history of conservation and environmental public policy. Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOG 469 The Making of the American Landscape Credits: 4
Surveys the historical geography and environmental history of the United States by tracing the evolution of the American landscape from precolonial times to the present, with special emphasis on teaching students skills they can use to interpret landscape history themselves. Prereq: Sophomore standing or one course in HISTORY, GEOG or ENVIR ST
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

GEOG 475 Topics in Geography Credits: 1 - 4
Subject matter, credits and prerequisites vary. Prereq: Varies
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 500 Qualitative Strategies in Geography Credits: 3
This seminar course surveys qualitative research and methods in geography, including the human subjects review process, research ethics, preparing for fieldwork, participant observation, interviewing, focus groups, filmic experiences, archival research, participatory action research, analyzing field materials and writing styles in qualitative research. Prereq: Junior, Senior or Graduate student standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOG 501 Space and Place: A Geography of Experience Credits: 3
Explore the concepts of space and place from the perspective of learning and everyday experience. Examines how space and place emerge out of fundamental human needs, experiences, and ways of thinking. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 503 Researching the City: Qualitative Strategies Credits: 3
Explores, and applies, qualitative methods in the field of urban geography. An introduction to debates around the analysis and interpretation of qualitative data is provided, grounded in concrete urban research. Participation in a three-day field course is required. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOG 505 Urban Spatial Patterns and Theories Credits: 3
Various urban empirical regularities and theories which explain them. Prereq: Geog 305 or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 506 Historical Geography of European Urbanization Credits: 3
Historical geography of urban development in Europe from classical times to the post-World War II era, with emphasis on changes in built environment, public space and infrastructure, land use, and urban systems. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 508 Landscape and Settlement in the North American Past Credits: 3
Historical geography of North American settlement patterns, cultural landscapes, regional identity and heritage. Prereq: Junior standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GEOG 510 Economic Geography Credits: 4
Theoretical aspects of spatial economic distributions and locational analysis. Prereq: Junior standing
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEOG 518 Power, Place, Identity Credits: 3
Advanced political geography course that explores reconceptualizations of power, place, and identity, as well as the interactive forces at work that continually reshape place-making and the inter-related processes of identification and differentiation. Prereq: So St
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOG 523 Quaternary Vegetation Dynamics Credits: 3
Geographic responses of plant species and terrestrial ecosystems to late-Quaternary environmental change, particularly changes in climate and carbon dioxide. Quaternary vegetation dynamics are relevant to understanding vegetational responses to the 21st-century climate change. Laboratory section emphasizes multivariate data analysis and vegetational modeling. Prereq: Jr st & Geog 120/127 or equiv
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 524 Advanced Landform Geography Credits: 3
Purposes, methods, and content of analysis of landforms, with emphasis on quantitative descriptive regional variation, and functional relationships. Prereq: Cons inst or Jr st
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 525 Soil Geomorphology Credits: 3
Soil development as related to landscape throughout the Quaternary; focusing on the relationship of soils to climate and vegetation, landscape evolution, and time; principles of soil stratigraphy; case histories of soil geomorphic studies; field trips. Prereq: Soil Sci 325 or Geog/Soil Sci 431; & an intermed level crse in geomorphology; or cons inst
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 526 Human Transformations of Earth Surface Processes Credits: 3
This course takes an earth systems approach to explore the role of human societies in shaping earth surface processes from local to global scales. We address how alterations to our landscapes and waterways affect biological, physical and chemical interactions among our biosphere, geosphere, hydrosphere and atmosphere. We discuss methods used to distinguish the "human impact" from background variability. Prereq: Junior standing or GEOG/ENVIR ST 120
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOG 527 The Quaternary Period Credits: 3
Principles of Quaternary studies emphasizing terrestrial records and paleoecology of the past two million years and comparisons with the deep ocean record and models of climatic change. Prereq: 1 intermed-level course in physical geog or geosci; or consent of instructor
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 528 Past Climates and Climatic Change Credits: 3
Climatic change throughout geologic time, especially in the last 10 millennia; mechanisms of change, evidence, and criteria, paleogeography and paleoclimatology, climate models. Prereq: Jr st or one year calculus-based college physics or introduction to weather and climate; or cons inst
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOG 534 Environmental Governance: Markets, States and Nature Credits: 3
This class is designed to help students answer real-world questions of how the environment is managed and governed through state policy, economics, and social institutions. We will cover strategies within and outside of the formal institutions of government, and extend the discussion to the commodification of nature and the use of science to understand and govern the environment. The last third of the class will consist of students engaging with case studies of environmental governance in water, carbon, species, and urban sustainability. Prereq: GEOG/ENVIR ST 339 or GEOG/ENVIR ST 439 or F&W ECOL/ENVIR ST 515
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring
GEOG 537 Culture and Environment Credits: 4
Geographic approaches to culture-nature relationships, including human perception of, use of, and adaptation to the physical environment, with emphasis on traditional subsistence systems; selected topics from contemporary and historical sources. Prereq: Geog/IES 339 or equiv
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 538 The Humid Tropics: Ecology, Subsistence, and Development Credits: 4
Description and analysis of humid-tropical ecosystems, with emphasis on the relationships, production potential, and human modification of biotic resources. Prereq: Jsr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 557 Development and Environment in Southeast Asia Credits: 3
Examines the political, socio-cultural, economic and ecological aspects of contemporary development and human-environment relations in mainland Southeast Asia, applying a critical and theoretically informed perspective, and focusing largely on rural issues. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 560 Advanced Quantitative Methods Credits: 3
Selected topics in the analysis of spatial distributions with emphasis on multivariate techniques. Prereq: Geog 360 or equiv; Jr st
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 565 Colloquium for Undergraduate Majors Credits: 3
Orientation to geography as a scholarly discipline; its development, objectives, essential concepts, methods of investigation, institutions, opportunities, problems, and trends. Prereq: Geog majors or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOG 566 History of Geographic Thought Credits: 3
An analysis of the development and significance of basic geographic concepts and theories. Major emphasis on concepts of place, spatial relations, landscape, and human-environment relations. Prereq: Junior standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 572 Graphic Design in Cartography Credits: 3 - 4
Study of the map as a graphic communication, the technical and perceptual aspects of its organization, symbolic coding, color and lettering. Prereq: Geog 370 or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 574 Geospatial Database Design and Development Credits: 4
Introduces the basic concepts, techniques and methodologies for designing and implementing a spatial database. The course prepares students for professional work as a GIS designer, analyst, specialist or researcher who uses spatial databases to store, manage and manipulate digital geographic data. Students learn how to design conceptual spatial database models, and how to implement them within specific spatial data management systems (DBMS). The course covers the basics of the SQL database language and the latest developments in database systems (e.g. NoSQL database) for managing and mining spatial big data such as social media datasets and GPS trajectories. Prereq: Geog 377
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOG 575 Interactive Cartography & Geovisualization Credits: 4
Examines emerging topics related to the design of user interfaces for manipulating maps, focusing on new cartographic challenges in Interactive Cartography, Geographic Visualization, and Geovisual Analytics and drawing upon relevant insight in Human-Computer Interaction, Information Visualization, and Usability Engineering. Prereq: Geog 370 and Comp Sci 302, or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 576 Geospatial Web and Mobile Programming Credits: 4
This course is designed to cover the programming concepts and skills for understanding construction and implementation of high quality spatial web portal and mobile Apps to support geospatial data access, analysis, sharing, and synthesis over the internet. Previous java programming knowledge is not essential, but basic programming experience is required. Prereq: Graduate standing OR one introductory GIS course (GEOG 170, GEOG 370 or GEOG/ENVIR ST 377) and one programming course (GEOG 378, COMP SCI 301, COMP SCI 302, or COMP SCI 367)
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
GEOG 577 Environmental Modeling with GIS Credits: 3
This course focuses on environmental modeling using geographic information systems. The course provides an overview of physical environmental processes and focuses on discussion of the GIS-techniques used to parameterize these processes. The discussion will be illustrated by widely used GIS-based environmental models. Prereq: Geog 377 or equiv & Geog 325 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 578 GIS Applications Credits: 4
Application and use of GIS techniques in physical and human geography. Includes an introduction to a generic framework of GIS applications, case studies, and student projects. Cases range from urban and regional geography, to marketing geography, and to physical and environmental geography. Prereq: Geog 377 & 370, or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOG 579 GIS and Spatial Analysis Credits: 4
Principles and algorithms for spatial analysis in geographic information systems. A theoretical and practical examination of analytical methods used in GIS, including point, line and polygon processing, interpolation, smoothing, spatial overlay and query, network analysis, terrain analysis, and classification. Prereq: Geog 377 or equiv, Geog 360, or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOG 602 Internship Credits: 1 - 2
Students may earn no more than two internship credits toward the 30-40 credits in geography. Prereq: Stdts should be declared Undergrad majors or Grad stdts in geography
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOG 675 Special Topics in Geography Credits: 3
Topics vary. Prereq: Jr, Sr, or Grad st, or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOG 676 Special Topics in Geography Credits: 3
Topics vary. Prereq: Jr, Sr, or Grad st, or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOG 681 Senior Honors Thesis Credits: 2 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 682 Senior Honors Thesis Credits: 2 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 691 Senior Thesis Credits: 2 - 3
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 692 Senior Thesis Credits: 2 - 3
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 698 Directed Study Credits: 1 - 3
Cr/N. Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 699 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOG 742 International Development Planning Theory Credits: 3
Provides students with a historical and theoretical foundation for critical thinking about international development planning. Prereq: Grad st or cons inst
Typically Offered: Occasionally
GEOG 765 Geographical Inquiry and Analysis: An Introduction Credits: 1
Geographic perspectives and analyses: history of the discipline, issues and research frontiers, interests and perspectives of Madison faculty, structure of graduate study in the department, research facilities and opportunities. Prereq: Grad st
Typically Offered: Fall

GEOG 766 Geographical Inquiry and Analysis: Techniques Credits: 1 - 3
Engaging in geographic research: analysis of successful proposals and published papers and books; different approaches to geographic research; writing of proposals for students' own research. Prereq: Grads: 3 cr, undergrads: 1 cr; or cons inst
Typically Offered: Spring

GEOG 799 Independent Reading Credits: 1 - 3
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Fall, Spring, Summer

GEOG 900 Seminar in Geography Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

GEOG 901 Seminar in Cultural Geography Credits: 2 - 3
Prereq: Grad st
Typically Offered: Occasionally

GEOG 918 Seminar in Political Geography Credits: 2 - 3
Prereq: Cons inst
Typically Offered: Occasionally

GEOG 920 Seminar in Physical Geography Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

GEOG 930 Seminar in People-Environment Geography Credits: 2 - 3
Analysis of people-nature links, including environmental issues, natural resources, and attitudes toward nature. Topics vary with each offering. Prereq: Grad st
Typically Offered: Occasionally

GEOG 932 Seminar in American Environmental History Credits: 3
Surveys recent and classic works on American environmental history to introduce students to the methods and historiography of the field. Prereq: Graduate or professional standing
Typically Offered: Occasionally

GEOG 953 Introduction to Ecology Research at UW-Madison Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students. Prereq: None
Typically Offered: Fall

GEOG 970 Seminar in Geographic Information Science Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

GEOG 980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface systems, involving physical geochemical and biological processes, and including interactions with human systems. Prereq: Grad st
Typically Offered: Occasionally

GEOG 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally
GEOG 983 Interdepartmental Seminar-African Studies Credits: 3
Interdisciplinary inquiry in African society and culture. Prereq: Grad st or cons inst
Typically Offered: Occasionally

GEOG 990 Research and Thesis Credits: 1 - 9
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

GEOG 999 Independent Work Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

GEOSCIENCE

GEOSCI 100 General Geology Credits: 3
Geologic processes, the structure and history of the earth, and minerals, rocks, fossils, and maps; field trips and discussion section. Prereq: Not open to those who have had Geosci 101, 106 or 109. Open to Fr
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEOSCI 102 Climate and Climate Change Credits: 3
This course describes the basic climate principles governing the climate system. It describes the climate and climate variability at present, climate evolution in the past, and the projected climate change into the future. The scientific principles underlying the natural and anthropogenic greenhouse effect and climate model forecasts are elucidated. Prereq: None
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 105 Survey of Oceanography Credits: 3 - 4
Nature and behavior of ocean water, interaction of oceans and atmosphere, structure of the ocean floor, life in the oceans, our relationship to the marine environment. Prereq: High school physics or chem recommended. Open to Freshmen
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 106 Environmental Geology Credits: 3
Application of geology to problems resulting from the ever more intense use of the earth and its resources. Lecture and discussion. Prereq: Not open to those who have had Geosci 101, 100, or 109. Open to Fr
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 107 Life of the Past Credits: 3
Minerals, rocks, geologic time; origin of life; paleobiology, evolution and classification of fossil plants, invertebrates, and vertebrates. Lecture, lab. Field trip optional. Prereq: Not open to those who have had Geosci 204. Open to Fr
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 110 Evolution and Extinction Credits: 4
Contemporary views of the origin and diversification of life; crises in the history of life, with emphasis on controversies regarding mass extinctions, particularly at the close of the Paleozoic and Mesozoic eras. Prereq: Open to Freshmen
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 111 Volcanoes and Civilization Credits: 1
An introduction to the impact and influence volcanoes have had on the evolution of the Earth, life, human civilizations, and modern society. Prereq: Open to Fr
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 112 Mountains and Moving Plates Credits: 1
An introduction to the Earth’s great mountain ranges, the processes that lead to their births and deaths, and the reasons why continental mountain ranges differ dramatically from oceanic mountains and mountains on other planets. Prereq: Open to Fr
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
This internet course will examine the earth and environmental science behind the news with the goal of producing more informed and knowledgeable citizens. The content will vary from semester to semester as topical modules become available. Prereq: Open to Fr. Not open to stdts who have completed other 100-level Geoscience cses.

L&S Breadth: Physical Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

This course will explore the diversity of microbial life forms in modern and ancient geological environments, with a focus on extreme environments of geological origin or relevance. Inquire-based activities will include exploration of unusual aspects of microbial life in everyday settings, as well as preparation and presentation of individual projects.  

Prereq: Open to Fr  
L&S Breadth: Biological Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring


Prereq: Open to Fr  
L&S Breadth: Physical Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

An examination of the origin and evolution of life in the universe based on our knowledge of astronomy, biology, and geology. Includes discussions on the search for extraterrestrial life and the history of life in our solar system.  

Prereq: Open to all undergrads  
L&S Breadth: Physical Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

Prereq: Graded on a Cr/N basis; requires cons inst  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

Prereq: Graded on a lettered basis; requires cons inst  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

Introduction to recognition and mapping of geologic structures in the field. Landforms, folds, faults, tectonics, geologic maps, and field instrumentation. Prereq: Geosci 100, 101, 106, 109 or cons inst  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

An overview of minerals and the three major groups of rocks: igneous, sedimentary, and metamorphic. Prereq: Geosci 100, 101, 106, 109 or cons inst  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

Physical evolution of the earth and its relationship to the development of life through geologic time. Lecture, lab, and field trips. Prereq: Geosci 100, 101, 106, 109 or cons inst  
L&S Breadth: Physical Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

Description of crust, mantle, and core of the earth as determined from geophysical and geochemical methods. Prereq: Geosci 202 & 203  
L&S Level: Intermediate/Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

Survey of fluid flow and sedimentary processes at and near the surface of the crust. Principal approach is via low-temperature aqueous geochemistry. Prereq: Geosci 203 & 204  
L&S Level: Intermediate/Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall
GEOSCI 304 Geobiology Credits: 3
An integrative approach to studying the interaction between the atmosphere, hydrosphere, biosphere, and geosphere as they have evolved during earth history. Overarching theme includes ocean-climate system changes, biogeochemical cycles, evolution from microbes to mammals, and critical events in life history. Prereq: Geosci 204 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOSCI 320 Geomorphology Credits: 3
Principles and analysis of geomorphic processes and resulting land forms. Field trip. Prereq: One of the following: Geosci 100, 101, 106, 109, 204, Geog 120, 127
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOSCI 326 Landforms-Topics and Regions Credits: 3
Emphasis on natural and human processes that control the morphology of the land and its waterways. When taught by Knox, major emphasis on surface water hydrology, erosion, sedimentation, and physical characteristics of streams and rivers. Prereq: Intro phy geog or phy geosci crse, or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOSCI 331 Gems: The Science Behind the Sparkle Credits: 1 - 2
This online course covers many of the important aspects of gemology. It explores the formation, collection, properties, and treatment of many popular gemstones. Prereq: Jr st. Stdts who have taken Geosci 306 are not eligible for 331. Geosci 331 does not count toward the geol major
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOSCI 333 The Age of Dinosaurs Credits: 3
This course, intended for non-majors, will survey the evolution and paleobiology of important groups of vertebrates that lived during the Mesozoic Era. Animals that will be covered include dinosaurs, crocodilians, pterosaurs, lizards, turtles, and synapsids.
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOSCI 350 Introduction to Geophysics: The Dynamic Earth Credits: 3
Methods of geophysics applied to earth structure and plate tectonics. Principles of seismology, gravity, geodesy, magnetism and heat flow. Prereq: Math 221
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOSCI 360 Principles of Mineralogy Credits: 3
Minerals, their physical and chemical properties, crystallography, and geologic significance. Prereq: 1 sem college chem or concurrent registration
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOSCI 370 Elementary Petrology Credits: 3
Igneous, sedimentary and metamorphic rocks, studied in hand sample and thin section. Prereq: Geosci 360
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOSCI 371 Introduction to Environmental Remote Sensing Credits: 3
Introduction to the Earth as viewed from above, focusing on use of aerial photography and satellite imagery to study the environment. Includes physical processes of electromagnetic radiation, data types and sensing capabilities, methods for interpretation, analysis and mapping, and applications. Prereq: Math 114 & Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOSCI 372 Intermediate Environmental Remote Sensing Credits: 3
Examines intermediate-level concepts in information extraction, data processing and radiative transfer relevant to remote sensing of the environment. Includes transforms, image correction, classification algorithms and change detection, with emphasis on applications for land use planning and natural resource management. Prereq: Envir St 301 or consent of instructor, sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring
GEOSCI 375 Principles of Geochemistry Credits: 3
Provides a chemical basis for understanding the origin, evolution, distribution and interactions of chemical elements and isotopes between the lithosphere, hydrosphere, biosphere, and atmosphere in geological and environmental processes. Prereq: Geosci 360 and Chem 109; and Geosci 370 or con reg; or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOSCI 376 Topics in Geology Credits: 1 - 3
Special topics or discussions of recent research. To be given as the need and opportunity arise. Different sections of this course may be simultaneously offered in two or more areas of geology. May be repeated for credit. Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

GEOSCI 410 Minerals as a Public Problem Credits: 3
Distribution of mineral resources; present and future problems of mineral supply; conservation of minerals, and mineral resources in relation to national and international policy. Prereq: Open to Fr
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GEOSCI 411 Energy Resources Credits: 3
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

GEOSCI 420 Glacial and Pleistocene Geology Credits: 3
Principles, characteristics and work of glaciers; events of the Pleistocene. Field trip. Prereq: Geosci 100, 101, 106 or 109 or Geog 120
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOSCI 430 Sedimentology and Stratigraphy Credits: 3
Comprehensive survey of the processes and products of sedimentation, including depositional environments, sedimentary tectonics, sequence stratigraphic principles, and analytical methods. Prereq: Geosci 203 or Geosci 360 & 370; Geosci 204; and Geosci 100, 101 or 106
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GEOSCI 431 Sedimentary & Stratigraphy Lab Credits: 1
Field- and specimen-based laboratory course in Sedimentology & Stratigraphy; emphasizes qualitative and quantitative description and interpretation of sediments and sedimentary deposits. Prereq: Geosci 204, Geosci 360, Geosci 370
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

GEOSCI 444 Practical Applications of GPS Surveying Credits: 2
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOSCI 455 Structural Geology Credits: 4
Principles of rock deformation, structures in layered rocks, structural analysis, intrusive structures. Lab: three-dimensional problems involving structural concepts; field trip. Prereq: Geosci 202, 204, one term of physics. Geosci 360 and 370 recommended or concurrent registration
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOSCI 456 Geologic Field Methods Credits: 2
Theory and techniques of geologic mapping; field trips. Geology 456 cannot be taken in lieu of Geology 459. Prereq: Geosci 455 must be taken con reg
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

GEOSCI 457 Conducted Field Trip Credits: 2
A one or two week trip primarily for the study of the principles and methods of geologic mapping. Prereq: Cons inst; Geosci 370 or con reg
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
GEOSCI 459 Field Geology Credits: 6
Detailed geologic mapping and solution of related problems in the field. A multi institutional course based at Park City, Utah. Prereq: Geosci 203 or Geosci 360 & 370; Geosci 455; & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

GEOSCI 474 Rock Mechanics Credits: 3
Classification of rock masses, stress and strain in rock, elastic and time-dependent behavior of rock, state of stress in rock masses, failure mechanisms, lab testing, geological and engineering applications. Prereq: EMA 201 or 214, 304, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOSCI 475 Rock Mechanics Applications to Environmental Problems Credits: 3
Classification of rock for specific engineering purposes, in situ testing, applications to surface mining and slope stability, applications to underground mining and excavations, applications to waste disposal and underground storage, applications to novel methods of in situ mining, applications to earthquakes. Prereq: MS&E 474 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GEOSCI 514 History of Geologic Thought Credits: 3
Major concepts from earliest to modern times. Prereq: Sr st, Geosci 100 or 101 & 204 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GEOSCI 515 Principles of Economic Geology Credits: 4
(Open to mining engineering students for 3 cr.) Composition, structure, occurrence, origin, and economic investigation of important groups of mineral deposits; problems of mineral deposition. Prereq: Geosci 203 or Geosci 360 & 370; Geosci 204; or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOSCI 517 Monsters and Science: A History of Vertebrate Paleontology Credits: 3
This course will explore the history of vertebrate paleontology, concentrating on the 19th through 21st centuries. The shifting and sometimes uncomfortable relations between paleontology and other sciences, the arts and the public will be a major theme of the course. Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOSCI 523 Quaternary Vegetation Dynamics Credits: 3
Geographic responses of plant species and terrestrial ecosystems to late-Quaternary environmental change, particularly changes in climate and carbon dioxide. Quaternary vegetation dynamics are relevant to understanding vegetational responses to the 21st-century climate change. Laboratory section emphasizes multivariate data analysis and vegetational modeling. Prereq: Jr st & Geog 120/127 or equiv
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOSCI 524 Advanced Landform Geography Credits: 3
Purposes, methods, and content of analysis of landforms, with emphasis on quantitative descriptive regional variation, and functional relationships. Prereq: Cons inst or Jr st
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOSCI 527 The Quaternary Period Credits: 3
Principles of Quaternary studies emphasizing terrestrial records and paleoecology of the past two million years and comparisons with the deep ocean record and models of climatic change. Prereq: 1 intermed-level course in physical geog or geosci; or consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GEOSCI 541 Paleobiology Credits: 3
The evolutionary process as interpreted from the fossil record. Topics include: the study of form; tempo and mode of evolution; levels and mechanisms of evolutionary change; extinction in the fossil record; trends and patterns in the history of life; macroevolution. Prereq: Geosci 304 or 540 or course in introductory biology
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GEOSCI 542 Invertebrate Paleontology Credits: 3
The evolutionary history, morphology, and ecology of fossil invertebrates. Labs emphasize fossil identification and recognition of basic morphological features. Prereq: Geosci 107, 110, 204, or a course in introductory biology
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
**GEOSCI 551 Oceanography: Recent Marine Sediments** Credits: 3
Origin, dispersal, composition, and in situ properties of recent clastic and carbonate seafloor deposits. Modern investigations of deep-sea cores, continental shelf and slope deposits, and on interpretation of mutually related oceanographic and sedimentary data. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEOSCI 556 Mountain Belts** Credits: 3
Examination of interaction of tectonic plates and the resulting structures. Prereq: Geoscience 455
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**GEOSCI 557 Structural Petrology** Credits: 3
Petrographic investigation of rock fabrics and deformation using thin sections. Use of microscopes and U-stage.
Prereq: Geosci 203 or Geosci 360 & 370; Geosci 455; or cons inst
L&S Breadth: Physical Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**GEOSCI 594 Introduction to Applied Geophysics** Credits: 3
Survey of applied geophysics, including seismic refraction, seismic reflection, electrical resistivity, gravity, and magnetics methods. The course will cover the basic physics of each method and modeling techniques and field procedures. Prereq: 1 yr of college calc, 1 yr of college physics
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**GEOSCI 595 Field Methods in Applied and Engineering Geophysics** Credits: 1
The application of geophysical field methods for delineating near-surface features and/or structures as applied to engineering, environmental and exploration problems. Prereq: 1 yr coll calc, 1 yr coll physics or EMA 201, 202 & Physics 202, prev or con reg in GLE/Geoscience 594
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**GEOSCI 610 Geochronology, Timescales, and Rates of Geologic Processes** Credits: 3
Application of radiometric isotopic dating methods. Status of geologic, astronomic, and paleomagnetic timescales. Chronology of flood basalts, impacts, extinctions, glaciations. Constraints on rates of magmatism, mountain uplift, deformation, erosion, sedimentation. Prereq: Geosci 203 or Geosci 360 & 370 or equiv, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**GEOSCI 627 Hydrogeology** Credits: 3 - 4
Mathematical treatment of the physical principles governing the flow of groundwater; emphasis on well hydraulics and flow system analysis; problem sets and class projects. Prereq: Intro course in geol, Jr st & Math 221 or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**GEOSCI 629 Contaminant Hydrogeology** Credits: 3
Physical and chemical processes governing the transport of pollutants in groundwater; application of hydrogeologic and geochemical theory and practice to the protection of aquifers from contamination; problem sets and group projects. Prereq: Geoscience 627 and college level chemistry or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**GEOSCI 681 Senior Honors Thesis** Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**GEOSCI 682 Senior Honors Thesis** Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**GEOSCI 691 Senior Thesis** Credits: 3 - 4
The senior thesis involves research conducted in collaboration with a faculty member (non honors students). Prereq: Major in geology and geophysics or geological engineering
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
GEOSCI 692 Senior Thesis Credits: 3 - 4
The senior thesis involves research conducted in collaboration with a faculty member (non honors students).
Prereq: Major in geology and geophysics or geological engineering
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOSCI 698 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOSCI 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GEOSCI 724 Groundwater Flow Modeling Credits: 3
An introduction to the principles of modeling groundwater flow systems, with emphasis on regional flow system analysis. Conceptual understanding of governing equations, and the use of finite difference techniques to solve such equations are stressed. Students develop their own codes and are introduced to packaged models, including those developed by the U. S. Geological Survey.  Prereq: Geosci 627 or equivalent, calculus
Typically Offered: Occasionally

GEOSCI 727 Advanced Hydrogeology Credits: 1 - 3
Advanced topics in Hydrogeology.  Prereq:  Geosci 627 and cons inst
Typically Offered: Occasionally

GEOSCI 729 Field Applications in Hydrogeology Credits: 2
Instruction and practice in instrumentation and techniques used in collection and interpretation of data. Lectures, labs, and field work in and around Madison.  Prereq: Geosci 627
Typically Offered: Occasionally

GEOSCI 731 Carbonate Geology Credits: 2
Comprehensive survey of the processes and products of carbonate sedimentation. Enrolling students should have completed all or most of the geology course requirements for an undergraduate major, in particularly sedimentary geology and stratigraphy.  Prereq: Graduate or professional standing
Typically Offered: Every Other Spring

GEOSCI 732 Geochemistry of Sediments Credits: 3
Processes involved in the origin of chemical sediments; shales, carbonates, and evaporites.  Prereq:  Geosci 360, 370
Typically Offered: Occasionally

GEOSCI 737 Conducted Field Trip Credits: 2
A 10-day field trip to South Florida carbonate province or to the Ouachita-Arbuckle area, or to other areas pertinent to sedimentary geology. Lectures precede trip.  Prereq: A stratigraphy or sedimentology crse or cons inst
Typically Offered: Occasionally

GEOSCI 740 Micropaleontology I Credits: 3
Microscopic fossils; conodonts, foraminifera, and ostracodes in particular; their biology, ecology, evolution, and stratigraphic distribution.  Prereq: Geosci 541
Typically Offered: Occasionally

GEOSCI 750 Problems in Oceanography Credits: 3
Introduction to techniques used in the study of the biology, chemistry, geology, and physics of the marine environment.  Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI 755 Advanced Structural Geology Credits: 3
Structures in layered, intrusive, and metamorphic rocks; structural analysis.  Prereq: Geosci 455 or equiv
Typically Offered: Occasionally
GEOSCI  758 Mechanics of Earthquakes and Faulting Credits: 3
Addresses current topics and controversies on fault mechanics, earthquake physics, and the rock record of seismicity. The course will emphasize critical reading and in-depth discussion of recent publications drawn from a variety of disciplines, including geophysical, geological, and geochemical studies and approaches. Prereq: Graduate or professional standing
Typically Offered: Every Other Fall

GEOSCI  765 Crystal Chemistry Credits: 3
Principles of crystal chemistry, emphasizing the structure and behavior of rock forming minerals. Prereq: Geosci 360 or equiv or cons inst
Typically Offered: Occasionally

GEOSCI  771 Igneous Petrology Credits: 3
Classification, characteristics, and petrogenesis of igneous rocks. Representative rock suites studied in lab. Prereq: Geosci 660 or cons inst
Typically Offered: Occasionally

GEOSCI  772 Metamorphic Petrology Credits: 3
Metamorphic agents and processes; the metamorphic facies concept; illustrative rock suites studied in lab. Prereq: Geoscience 370
Typically Offered: Occasionally

GEOSCI  776 Interfacial Biogeochemistry Credits: 3
Geochemical basis for understanding reactions at interfaces between mineral surfaces, dissolved organic compounds, biomembranes and aqueous solutions. Topics include sorption, heterogeneous nucleation, mineral dissolution kinetics electric double-layer theory, surface-complexation models, surface spectroscopy, interfacial thermodynamics, biomineralization biomimetic materials synthesis, early evolution of life. Prereq: Cons inst L&S Level: Advanced Typically Offered: Occasionally

GEOSCI  777 Electron Microprobe Analysis Credits: 3
Proper use and functioning of electron probe and SEM, their use in microanalysis (WDS, EDS), range of applications, and limitations; plus lab. Prereq: Grad st and cons inst
Typically Offered: Occasionally

GEOSCI  793 Geophysical Inverse Theory Credits: 3
Application of inverse methods to geophysical measurements of the structure of the earth. Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI  796 Physics of the Earth II Credits: 3
Theory and observations of earthquakes, seismic waves and plate tectonics. Prereq: Physics 322, Math 322
Typically Offered: Occasionally

GEOSCI  797 Tectonophysics Credits: 3
Elasticity and flexure of the earth's lithosphere, heat conduction, mantle convection, earthquake mechanisms, rock rheology, and fluid migration in the earth's crust; integration of geophysical observations, laboratory experiments, and theoretical models. Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI  875 Advanced Topics in Geology Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI  911 Limnology and Marine Science Seminar Credits: 1
Sections in various fields of zoological research. Prereq: Grad st in limnology & marine sci grad prgm or cons inst
Typically Offered: Occasionally

GEOSCI  920 Seminar in Glacial and Pleistocene Geology Credits: 1 - 3
Subjects selected; field trips. Prereq: Geosci 320 & 420 or cons inst
Typically Offered: Occasionally
GEOSCI 929 Seminar-Hydrogeology Credits: 1 - 2
Subject selected. Prereq: Geosci 627 & cons inst
Typically Offered: Occasionally

GEOSCI 940 Seminar in Paleontology Credits: 1
Prereq: Geosci 540-541
Typically Offered: Occasionally

GEOSCI 955 Seminar-Structural Geology Credits: 2
Prereq: Geosci 455 or equiv or cons inst
Typically Offered: Occasionally

GEOSCI 970 Seminar-Geochemistry Credits: 2
Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI 980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface systems, involving physical geochemical and biological processes, and including interactions with human systems. Prereq: Grad st
Typically Offered: Occasionally

GEOSCI 990 Research Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI 991 Seminar: Geophysics Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

GEOSCI 999 Advanced Independent Reading Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

GERMAN

GERMAN 101 First Semester German Credits: 4
For beginners; emphasis on proficiency in German through speaking, listening, reading, and writing, and on communication in cultural context. Five class hours per week. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 102 Second Semester German Credits: 4
Continuation of skill development from 101. Five class hours per week. Prereq: German 101 or appropriate score on placement exam. Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 111 First Semester Dutch Credits: 4
For beginners; emphasis on proficiency in Dutch through speaking, listening, reading, and writing, and on communication in cultural context. Four class hours per week. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GERMAN 112 Second Semester Dutch Credits: 4
Continuation of skill development begun in Dutch 111. Four class hours per week. Prereq: Dutch 111 or cons inst. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GERMAN 203 Third Semester German Credits: 4
Four-skills approach (speaking, listening, writing, reading) centered around authentic texts, recordings, and images. Grammar review, concerted vocabulary expansion, and intensive practice. Prereq: German 102 or appropriate score on placement exam. Open to Freshmen
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
GERMAN 204 Fourth Semester German  Credits: 4
Continuation of skills development from 203.  Prereq:  German 203 or appropriate score on placement exam.
Open to Freshmen
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 213 Third Semester Dutch  Credits: 4
Review of Dutch grammar and continuation of systematic vocabulary development.  Prereq:  Dutch 112 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GERMAN 214 Fourth Semester Dutch  Credits: 4
Reading and discussion of texts dealing with the cultural history of the Netherlands and Flanders as well as samples of modern Dutch fiction.  Prereq:  Dutch 213 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GERMAN 221 Introduction to German Literature and Culture I  Credits: 3
Readings and discussion of a variety of 20th-century German-language literary and cultural texts such as short stories, plays, and poems, as well as autobiographical writings and essays; introduction to the analysis of literary texts; emphasis on development of reading, speaking, and writing skills. In German.  Prereq:  German 204 or 225, or placement at 5th-sem level. Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 222 Introduction to German Literature and Culture II  Credits: 3
Variety of texts from the late 18th and 19th centuries; emphasis on close reading, techniques of textual analysis, and cultural context. Further improvement in reading, speaking, and writing skills. In German.  Prereq:  German 221 or cons inst. Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 225 Composition and Conversation I  Credits: 3
Speaking and writing about everyday matters and elements of contemporary culture in German-speaking countries; grammar review.  Prereq:  German 204 or appropriate score on placement exam; may be repeated once only for cr. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 226 Composition and Conversation II  Credits: 3 - 4
Continuation of 225 with more advanced materials.  Prereq:  German 225; may be repeated once only for cr.
Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 235 Dutch Conversation and Composition  Credits: 3
A review of Dutch grammar and vocabulary and intensive development of writing and speaking skills in Dutch. Completion of this course will provide students with a strong linguistic preparation for study in a Dutch-speaking university.  Prereq:  German 214 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 236 Bascom Course  Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields.  Prereq:  Successful completion of or exemption from Com A requirement. Open to Fr.
General Education:  COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GERMAN 245 Topics in Dutch Life and Culture  Credits: 3
Cultural history and traditions of Dutch speaking countries. All readings and lectures in English.  Prereq:  Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 249 Intermediate German - Speaking and Listening  Credits: 3
Drawing mainly on contemporary audio and video materials from German-speaking countries, students will deepen their appreciation of German as a spoken language by learning how native speakers vary their use of sound structures, vocabulary, and grammar according to speech situation.  Prereq:  German 204 or appropriate UW-System German Placement Test score or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GERMAN 258 Intermediate German-Reading Credits: 3
Students will develop their reading skills in working with literary and cultural texts from 1800 to the present. The course emphasizes close reading, textual analysis, historical context, and the use of appropriate reading strategies. Prereq: German 204 or appropriate UW-System German Placement Test score or consent of instructor
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 262 Intermediate German-Writing Credits: 3
This course will strike a balance between individual and collaborative writing and between teacher- and student-guided writing activities. Students' writings will rely on authentic text models, many with German-specific cultural connotations. Longer-term writing projects will alternate with short-term writing assignments. German 204 or appropriate UW-System German Placement Test score or consent of instructor
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 266 Topics in German and/or Yiddish Culture Credits: 3
Introduction to diverse cultural expressions of German and/or Yiddish speakers worldwide. Readings and lectures in English. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 267 Yiddish Song and the Jewish Experience Credits: 3 - 4
Explores Yiddish song as an expression of the modern Jewish experience from Eastern Europe to the US. Covers folk song, popular and art music. Music and readings together provide an analytical framework to examine cultural and historical issues. Prereq: For Communication B sections, satisfied Communication A requirement
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

GERMAN 269 Yiddish Literature and Culture in Europe Credits: 3
Exploration of European Yiddish fiction, poetry, folklore, and cinema, with a focus on works of the 19th and 20th centuries. Prereq: Open to Freshmen
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

GERMAN 271 The German Immigration Experience Credits: 3
Surveys experiences through the centuries of America's German-speaking immigrants, including their situations in Europe, their reasons for leaving, and their successes and difficulties in their new home. Historical, sociological, linguistic, cultural, and other aspects will be considered. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

GERMAN 272 Nazi Culture Credits: 3
Examines how ideology and new policies influenced cultural life in the Third Reich. Topics include propaganda and entertainment films, music, literature and theater, visual arts and architecture, youth education, and consumer culture specifically in its appeal to women. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 274 Introduction to German Literature Credits: 6
Intensive introduction to German-language literature from 1750 to the present, and to techniques of literary analysis. Completion of 274 satisfies the 6-credit literature requirement for L & S students. Students may not receive credit for both 258 and 274. Prereq: German 204 with an A, or placement at 5th-semester level and cons inst. Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 275 Kafka and the Kafkaesque Credits: 3
Franz Kafka (1883-1924) is an author whose impact on world literature cannot be overestimated. Born an Austrian Jew and living in the German-speaking Diaspora of Prague, he spent his days making a living as a successful employee of an insurance company and his nights desperately trying to create fiction that met his own exacting expectations. Constantly at odds with the demands of his family, friends, and fiancées/female acquaintances and plagued by poor health, Franz Kafka struggled his entire life long to reconcile the irreconcilable: life and writing. Kafka's texts demand a transdisciplinary and comparative approach. They forged a new level and quality of literature that has triggered in
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
GERMAN 276 Special Topics in German and World Literature/s   Credits: 3
Exploration of diverse world literary traditions, including German. All readings and lectures in English. Prereq:
Sophomore standing
L&S Breadth: Literature   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

GERMAN 278 Topics in German Culture   Credits: 3
Introduction to German-speaking cultures. Topics may include Weimar culture, Nazi culture, Berlin, fin-de-siècle
Vienna, minorities, representatives of the Holocaust, Germanic mythology, East Germany, Germans in America.
Readings and lectures in English. Prereq: Open to Fr. Does not fulfill foreign language requirement and cannot
be applied towards German major. Repeatable for cr with different topic
L&S Breadth: Humanities   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

GERMAN 279 Yiddish Literature and Culture in America   Credits: 3
Exploration of American Yiddish poetry, fiction, theater, and cinema created by European Jews in the United
States. Prereq: Open to Freshmen
Ethnic Studies: Yes   L&S Breadth: Literature   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Spring

GERMAN 284 Honors Introduction to German Literature   Credits: 6
Intensive introduction to German-language literature from 1750 to the present, and to techniques of literary
analysis for honors. Completion of 284 satisfies the 6-credit literature requirement for L&S students. Students may
not receive credit for both 258 and 284. Prereq: German 204 with an A, or placement at 5th-semester level &
cons inst. Open to Fr
L&S Breadth: Literature   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

GERMAN 298 Directed Study   Credits: 1 - 3
Prereq: Graded on a Cr/N basis; requires cons inst
L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

GERMAN 299 Directed Study   Credits: 1 - 3
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

GERMAN 303 Literatur des 19. Jahrhunderts   Credits: 3 - 4
Prereq: German 249, 258, and 262; or German 249 and 274 or 284; or cons inst
L&S Breadth: Literature   L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

GERMAN 305 Literatur des 20. und 21. Jahrhunderts   Credits: 3 - 4
Prereq: German 249, 258, and 262; or German 249 and 274 or 284; or cons inst
L&S Breadth: Literature   L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

GERMAN 311 First Semester Dutch for Graduate Students   Credits: 3
Designed to help graduate students acquire a minimal communication level of proficiency in Dutch through
listening, speaking, reading, and writing. Four class hours per week. Prereq: Grad st
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall

GERMAN 312 Second Semester Dutch for Graduate Students   Credits: 3
Continuation of skill development begun in German 111/311. Four class hours per week. Prereq: Grad st and:
German 111 or 311 or cons inst
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Spring

GERMAN 313 Third Semester Dutch for Graduate Students   Credits: 3
A review of Dutch grammar and vocabulary development. Reading and discussion of newspaper articles and
modern short stories. Prereq: Grad st and: German 112 or 312 or cons inst
L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Fall

GERMAN 314 Fourth Semester Dutch for Graduate Students   Credits: 3
Reading and discussion of texts dealing with the cultural history of the Netherlands and Flanders as well as
samples of modern Dutch fiction. Prereq: Grad st and: German 213 or 313 or cons inst
L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Spring
GERMAN 325 Topics in Dutch Literature  Credits: 3  
Study of an author or theme in modern Dutch/Flemish literature, presented by the current Dutch/Flemish writer in residence.  Prereq: 4 sem Dutch or cons inst  
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 335 Dutch Conversation and Composition  Credits: 3  
A review of Dutch Grammar and vocabulary and intensive development of writing and speaking skills in Dutch.  Completion of this course will provide students with a strong linguistic preparation for study in a Dutch-speaking university.  Prereq:  German 314 or cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 337 Advanced Composition & Conversation  Credits: 3 - 4  
Essay writing; vocabulary building; oral presentations.  Prereq:  German 249, 258, and 262; or German 249 and 274 or 284; or cons inst; may be repeated once only for credit  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 339 Business German Internship Seminar  Credits: 4  
Seminar in connection with the German Business Internship Program in Bonn, Germany.  Prereq:  Participation in German Business Internship Program in Bonn  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GERMAN 351 Introduction to German Linguistics  Credits: 3 - 4  
Understanding the German language in its historical development and its contemporary manifestations, using English as a point of reference.  Prereq:  German 249, 258, and 262; or German 249 and 274 or 284; or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GERMAN 352 Topics in German Linguistics  Credits: 3 - 4  
Hands-on introduction to a topic in German language study. Course topics are designed to be relevant to future teachers of German as well as to those inclined to pursue graduate study in German philology/linguistics.  Prereq:  German 351 or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GERMAN 362 Topics in German Literature  Credits: 3 - 4  
Selected topics in the literature of German-speaking countries.  Prereq:  German 249, 258, and 262; or German 249 and 274 or 284; or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 367 Study Abroad in German Literature  Credits: 2 - 5  
Treatment of a topic in German literature in a course carried with a UW-Madison study abroad program which has no equivalent on this campus.  Prereq:  Current reg in a UW-Madison study abroad prgm, plus German 249, 238, and 262; or German 249 and 274 or 284; or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 368 Study Abroad in German Culture  Credits: 2 - 5  
Treatment of a topic in German culture in a course carried with a UW-Madison study abroad program which has no equivalent on this campus.  Prereq:  Current reg in a UW-Madison study abroad prgm, plus German 249, 258 and 262; or German 249 and 274 or 284; or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 369 Study Abroad in German Linguistics  Credits: 2 - 5  
Treatment of a topic in German linguistics in a course carried with a UW-Madison study abroad program which has no equivalent on this campus.  Prereq:  Current reg in a UW-Madison study abroad prgm, plus German 249, 258, and 262; or German 249 and 274 or 284; or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 372 Topics in German Culture  Credits: 3 - 4  
Selected topics in the culture of German-speaking countries.  Prereq:  German 249, 258, and 262; or German 249 and 274 or 284; or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GERMAN 377 Study Abroad in Dutch Literature Credits: 2 - 5
Treatment of a topic in Dutch literature in a course offered at a university outside the United States. Prereq: German 214
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 378 Study Abroad in Dutch Culture Credits: 2 - 5
Treatment of a topic in Dutch culture in a course offered at a university outside the United States. Prereq: German 214
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 379 Study Abroad in Dutch Linguistics Credits: 2 - 5
Treatment of a topic in Dutch linguistics in a course offered at a university outside the United States. Prereq: German 214
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 385 Honors Seminar in German Literature Credits: 3
Selected topics from 1750 to the present. Prereq: German 284 or one of 302-305 or cons inst. Stdts may receive degree cr for no more than one of the following crses: German 375 & 385. Open to Fr
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GERMAN 391 German for Graduate Reading Knowledge I Credits: 3
Intensive grammar and reading course for seniors and graduate students. May not be counted toward L & S foreign language requirement. Prereq: Sr or Grad st
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

GERMAN 392 German for Graduate Reading Knowledge II Credits: 3
Continuation of 391. May not be counted toward L & S foreign language requirement. Prereq: Sr or Grad st plus German 391 or cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

GERMAN 401 First-Semester German for Graduate Students Credits: 3
For beginners; emphasis on proficiency in German through speaking, listening, reading, and writing, and on communication in cultural context. Five class hours per week. Prereq: Graduate standing
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 402 Second-Semester German for Graduate Students Credits: 3
Continuation of skill development from 401. Five class hours per week. Prereq: Graduate standing & German 101 or 401 or the equivalent
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 403 Third-Semester German for Graduate Students Credits: 3
Four-skills approach (speaking, listening, writing, reading) centered around authentic texts, recordings, and images. Grammar review, concerted vocabulary expansion, and intensive practice. Prereq: Graduate standing & German 102 or 402 or the equivalent
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 404 Fourth-Semester German for Graduate Students Credits: 3
Continuation of skills development from 403. Prereq: Graduate standing & German 203 or 403 or the equivalent
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 410 Kultur 1648-1918 Credits: 3 - 4
Prereq: German 249, 258, and 262; or German 249 and 274 orr 284; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GERMAN 411 Kultur des 20. Jahrhunderts Credits: 3 - 4
Cultural trends in the German-speaking countries since 1918. Prereq: German 249, 258, and 262; or German 249 and 274 or 284; or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GERMAN 445 Topics in Dutch Culture Credits: 3 - 4
Topic in Dutch-language cultures. Prereq: German 214 or 314, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
GERMAN 510 German-Jewish Culture Since the 18th Century Credits: 3
Investigates German-Jewish culture since the 18th century, concentrating on toleration, emancipation, acculturation, assimilation, anti-Semitism, and Bildung. Prereq: Jr st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

GERMAN 560 Topics in German Studies Credits: 3
Topics will vary. Each seminar will focus on a topic in German Studies. The language of instruction and all course materials are in English. Honors credit available. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GERMAN 611 Survey of German Literature to 1700 Credits: 3
Representative works from the oldest records to the eighteenth century. Prereq: Sr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GERMAN 612 German Literary Movements Since 1750 Credits: 3
Ideas and theories of literary movements exemplified in selected primary and secondary literature. Prereq: Grad st or two of: German 302, 303, 305, 375/385
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GERMAN 625 Letterkunde der Lage Landen Credits: 3 - 4
Topics vary. May include: medieval literature; Golden Age literature; texts from Europe, South Africa, Indonesia, the Caribbean; memory in post-war literature; women writers; twentieth-century movements; Dutch-Jewish literature. Taught primarily in Dutch. Prereq: German 314 or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 632 A Theme in German Literature Credits: 3
Prereq: Grad st or two of: German 302, 303, 305, 375/385
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GERMAN 644 Theory and Practice of German Drama Credits: 3
German dramatic theory, interpretation of German drama, practice of dramatic elocution and performance. Prereq: A 300-level German lit crse with B or better, or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GERMAN 645 Cultuurkunde der Lage Landen Credits: 3 - 4
Theory and analysis of such topics as: construction of Dutch and Belgian identities; medieval culture; the Dutch Revolt and Golden Age; colonialism, anti-colonialism, post-colonialism; immigration and emigration; Dutch and Flemish regionalism vis-a-vis Europeanization and globalization. Taught primarily in Dutch. Prereq: German 314 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GERMAN 650 History of the German Language Credits: 3
Overview of the history of the German language; basic methodological and bibliographical training necessary for work in German philology/linguistics and the older Germanic languages. Prereq: Sr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

GERMAN 651 Introduction to Middle High German Credits: 3
Prereq: Advanced knowledge of German
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

GERMAN 655 German Film Credits: 3
Important filmmakers from 1910 to the present; their relation to German cultural and social history of the period. Prereq: For German cr: one 300 level crse or above; or cons inst. For com arts cr: Com Arts 350
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GERMAN 676 Advanced Seminar in German Studies Credits: 3
Topics will vary. Each seminar will focus on a topic in German studies. Research opportunity for advanced students. Honors credit available. Prereq: German 337 & 2 additional adv German crses or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
GERMAN 677 Seminar in German Culture Studies Credits: 3
Texts of a specific period of German cultural history (e.g., the Romantic era, the Baroque) are analyzed. Honors credit available. Prereq: German 410 or 411 or 601 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GERMAN 681 Senior Honors Thesis-First Semester Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 682 Senior Honors Thesis-Second Semester Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 683 Senior Honors Seminar in German Literature Credits: 3
Preparation of a seminar paper as a basis for a possible Honors Thesis. Prereq: German 385 or cons inst. Stdts may receive degree cr for no more than one of the following: German 673 or 683
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

GERMAN 698 Directed Study Credits: 1 - 6
Prereq: Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 699 Directed Study Credits: 1 - 6
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GERMAN 701 Literature of the Middle Ages (750-1400) Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

GERMAN 703 18th Century German Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

GERMAN 708 19th Century German Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

GERMAN 709 German Literature of the 20th and 21st Centuries Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

GERMAN 711 Special Topics in German Literature Credits: 3
May be repeated for different topics. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 720 College Teaching of German Credits: 1
Prereq: Teaching assistantship in German
Typically Offered: Occasionally

GERMAN 722 Theory of Teaching German Credits: 2
Theory and methodology of teaching German as a second language. Prereq: German 720 or cons inst
Typically Offered: Occasionally

GERMAN 723 Practicum in Teaching Undergraduate Literature Credits: 1 - 2
Observation and discussion of undergraduate literature course. Consideration of pedagogical issues and limited opportunity for practice teaching. Prereq: Ph.D. stdt; teaching experience; cons inst
Typically Offered: Occasionally

GERMAN 724 Practicum in Teaching Undergraduate Linguistics Credits: 1 - 2
Observation and discussion of undergraduate linguistics course. Consideration of pedagogical issues and limited opportunity for practice teaching. Prereq: Ph.D. stdt; teaching experience; cons inst
Typically Offered: Occasionally
GERMAN 725 Practicum in Teaching Undergraduate Culture Credits: 1 - 2
Observation and discussion of undergraduate culture course. Consideration of pedagogical issues and limited opportunity for practice teaching. Prereq: Ph.D. stdt; teaching experience; cons inst
Typically Offered: Occasionally

GERMAN 727 Topics in Applied Linguistics Credits: 3
Selected issues in language acquisition and language teaching. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 741 Topics in German Cultural Theory Credits: 3
Selected topics focus on theoretical issues in textual interpretation and cultural analysis. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 742 Topics in German Cultural Studies Credits: 3
Selected topics in German culture. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 755 Old Germanic Languages Credits: 3
Old High German, Old Saxon, and Gothic on a rotating basis; may be repeated for different languages. Prereq: Cons inst or German 651
Typically Offered: Occasionally

GERMAN 758 Topics in Contemporary German Credits: 3
Topics announced; may be repeated for different topics. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 768 Comparative and Historical Grammar of the Old Germanic Languages Credits: 3
General characteristics of the Old Germanic languages, especially in phonology; methods of reconstruction. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 799 Independent Study Credits: 1 - 6
Advanced study under guidance. Prereq: Grad st & cons inst
Typically Offered: Occasionally

GERMAN 804 Interdisciplinary Western European Area Studies Seminar Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

GERMAN 940 Seminar in German Literature Credits: 3
Second semester of introductory sequence. Continues integrated discussion of literary texts/topics and methodological issues at a more advanced level. Required for literature students. Taught each spring semester. Prereq: German 939
Typically Offered: Occasionally

GERMAN 947 Seminar in German Literature and Culture Credits: 3
Subjects announced. Prereq: Grad st
Typically Offered: Occasionally

GERMAN 948 Seminar in German Literature and Culture Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

GERMAN 960 Seminar in German Linguistics Credits: 3
Topic from a core area of linguistics, with integrated discussion of methodological approaches; bibliographical skills; basics of linguistic scholarship. Required for linguistics students. Taught each spring semester. Prereq: German 939
Typically Offered: Occasionally

GERMAN 960 Seminar in German Linguistics Credits: 3
Subjects announced. Prereq: Grad st
Typically Offered: Occasionally
GERMAN 990 Individual Research in Literature Credits: 1 - 9
Conference hours to be arranged with the chairman. Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

GERMAN 991 Individual Research Linguistics and Germanic Philology Credits: 1 - 9
Conference hours to be arranged with chairperson. Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

GREEK (CLASSICS)

GREEK 103 First Semester Greek Credits: 4
Prereq: Not open to students who have had Greek 303. Open to All Undergrads
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

GREEK 104 Second Semester Greek Credits: 4
Prereq: Greek 103, Open to Fr or So
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

GREEK 105 Modern Greek-First Semester Credits: 1 - 4
An introduction to conversational Modern Greek. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

GREEK 303 First Semester Greek Credits: 3 - 4
Forms and syntax, reading of easy Greek prose. Prereq: Jr st or cons inst; 3 cr for Grad students
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

GREEK 304 Second Semester Greek Credits: 3 - 4
Continuation of 303. Prereq: Greek 303; 3 cr for Grad students
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

GREEK 305 Intermediate Greek Credits: 3
Selections from Plato's Dialogues, the New Testament, Homer's Iliad, and Herodotus. Prereq: Greek 104 or 304
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

GREEK 306 Intermediate Greek Credits: 3
Continuation of 305. Prereq: Greek 305
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

GREEK 401 Greek Drama Credits: 3
Selected plays of Euripides or Sophocles; selections from the lyric poets. Prereq: Greek 305-306
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

GREEK 402 Greek Drama and Lyric Poetry Credits: 3
Continuation of 401. Prereq: Greek 401
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

GREEK 505 Elementary Prose Composition Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

GREEK 510 Homer Credits: 3
Extensive reading in both Iliad and Odyssey. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

GREEK 511 Hesiod Credits: 3
The writings of Hesiod in Greek. Prereq: Greek 306 or cons inst
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
GREEK 512 Greek Lyric Poets Credits: 3
The complete corpus of Alcman, Ibycus, Stesichorus, Sappho, Alcaeus, Corinna, Anacreon, Praxilla, and Simonides. Selections from Bacchylides and Pindar. Prereq: Greek 401-402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 520 Greek Comedy Credits: 3
Close reading of several plays with attention to Aristophanes' lyric genius and political opinions. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 521 Greek Tragedy Credits: 3
Close reading of selected plays of Aeschylus, Sophocles or Euripides. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 532 Thucydides Credits: 3
Continuation of 531. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 541 Plato Credits: 3
Exploration in original language of major topics in Platonic philosophy. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 551 Attic Orators Credits: 3
Selected masterpieces from Antiphon to Hypereides, with emphasis upon the contribution of rhetoric to the intellectual life of the fourth century. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 560 Hellenistic Greek Credits: 3
A selection of texts, chiefly religious in content, pagan, Jewish, and Christian. Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 564 Plutarch Credits: 3
Prereq: Greek 401 and 402 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

GREEK 681 Honors Thesis Credits: 3
Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GREEK 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GREEK 691 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GREEK 692 Senior Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GREEK 699 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st. Graded on lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

GREEK 890 Individual Research Thesis Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

GREEK 910 Seminar-Poetry Credits: 3
Prereq: Grad st
Typically Offered: Occasionally
GREEK 920 Seminar-Drama Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

GREEK 930 Seminar-History Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

GREEK 970 Seminar-Related Fields Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

HEBREW-BIBLICAL

HEBR-BIB 103 Elementary Biblical Hebrew, I Credits: 4
Introduction to the language of the Hebrew Bible (first semester of Biblical Hebrew). Serves as basis for later forms of Classical Hebrew. Prereq: None
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

HEBR-BIB 104 Elementary Biblical Hebrew, II Credits: 4
Second semester of Biblical Hebrew. Continuation of Hebrew 103. Prereq: Hebrew 103
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

HEBR-BIB 303 Elementary Biblical Hebrew, I Credits: 3
Introduction to the language of the Hebrew Bible (first semester of Biblical Hebrew). Serves as basis for later forms of Classical Hebrew. Students may not enroll in both Hebrew-Biblical 103 and 303. Prereq: Junior or graduate standing
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

HEBR-BIB 304 Elementary Biblical Hebrew, II Credits: 3
Second semester of Biblical Hebrew. Continuation of Hebrew-Biblical 303. Students may not enroll in both Hebrew-Biblical 104 and 304. Prereq: Junior or graduate standing
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

HEBR-BIB 323 Intermediate Biblical Hebrew, I Credits: 4
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HEBR-BIB 324 Intermediate Biblical Hebrew, II Credits: 4
Fourth semester of Biblical Hebrew. Continuation of 323. Prereq: Hebrew Biblical 323
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HEBR-BIB 332 Prophets of the Bible Credits: 4
An introduction to the thought, literature, and history of the prophets of ancient Israel (in English). Prereq: CLASSICS/JEWISH/LITTRANS/RELIG ST 227 or Sophomore standing
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HEBR-BIB 452 Biblical Archaeology Credits: 2
Continuation of 451. Prereq: Junior standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HEBR-BIB 513 Biblical Texts, Poetry Credits: 3
Critical reading of selected texts from the Minor Prophets and the Writings. Prereq: HEBR-BIB 324
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

HEBR-BIB 514 Biblical Texts, Poetry Credits: 3
Continuation of 513. Prereq: HEBR-BIB 513
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
HEBR-BIB  641 The Book of Ezekiel  Credits: 3
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HEBR-BIB  701 Aramaic I  Credits: 3
Grammar and readings in Biblical Aramaic (Daniel, Ezra).  Prereq:  None
Typically Offered: Fall

HEBR-BIB  702 Aramaic II  Credits: 3
Selections from non-biblical Aramaic texts: Inscriptions, Elephentine letters, Ahiqar, Targumim.  Prereq:  None
Typically Offered: Spring

HEBR-BIB  703 Ugaritic Texts  Credits: 3
Readings in mythological, administrative, and epistolary texts from Ras Shamra-Ugarit.  Prereq:  None
Typically Offered: Fall, Spring

HEBR-BIB  704 Canaanite Dialects  Credits: 3
Phoenician, Punic, Moabite, and Hebrew epigraphic texts.  Prereq:  None
Typically Offered: Fall, Spring

HEBR-BIB  705 Syriac I  Credits: 3
Syriac grammar and reading.  Prereq:  Graduate standing or consent of instructor
Typically Offered: Fall

HEBR-BIB  706 Syriac II  Credits: 3
Readings in Peshitta, literary texts.  Prereq:  None
L&S Breadth: Literature  Typically Offered: Spring

HEBR-BIB  723 Classical Hebrew Linguistics: Historical and Descriptive  Credits: 3
The phonology, morphology and syntax of biblical Hebrew; viewed from historical and descriptive linguistic perspectives.  Prereq:  None
Typically Offered: Fall

HEBR-BIB  743 Pentateuchal Narratives  Credits: 3
Philological and literary study of the Hebrew narratives in Genesis through Deuteronomy, with readings in the ancient translations.  Prereq:  None
Typically Offered: Occasionally

HEBR-BIB  744 Pentateuchal Legal Codes  Credits: 3
A philological and comparative study, in Hebrew, of legal codes embedded in the narratives of Exodus, Leviticus, and Deuteronomy.  Prereq:  Graduate or professional standing
Typically Offered: Occasionally

HEBR-BIB  751 The Book of Isaiah  Credits: 3
Philological and literary study of the Hebrew text. Readings in the ancient translations.  Prereq:  Hebrew 514 or consent of instructor
Typically Offered: Fall

HEBR-BIB  752 The Book of Isaiah  Credits: 3
Continuation of 651.  Prereq:  Hebrew 751
Typically Offered: Spring

HEBR-BIB  753 Wisdom Literature: Proverbs and Qohelet  Credits: 3
Philological and literary study selections from the Hebrew text of Proverbs, Qohelet, and other works. Readings in the ancient translations.  Prereq:  None
Typically Offered: Fall

HEBR-BIB  754 Wisdom Literature: Job  Credits: 3
Philological and literary study of the Hebrew text of Job. Readings in the ancient translations.  Prereq:  None
L&S Breadth: Literature  Typically Offered: Spring
HEBR-BIB 755 Psalms Credits: 3
Philological and linguistic study of the Book of Psalms in Hebrew, with readings in the ancient translations. Special attention will be given to the book's bearing on our understanding of ancient Israelite religion(s). Prereq: Graduate student or consent of instructor
Typically Offered: Fall

HEBR-BIB 799 Independent Study Credits: 1 - 3
Consent of chairperson required. Prereq: Graduate standing
Typically Offered: Occasionally

HEBR-BIB 951 Seminar-Biblical Studies Credits: 2
Topics vary. Prereq: Graduate standing or consent of instructor
Typically Offered: Occasionally

HEBR-BIB 954 The Dead Sea Scrolls Credits: 2
Research in the literature, religion, and society of the Qumran community. Prereq: 2 yrs of Biblical Hebrew & Graduate standing, or consent of instructor
Typically Offered: Occasionally

HEBR-BIB 956 Seminar in Early Biblical Interpretation Credits: 2
A study of the forms and content of biblical interpretation in Ancient Israelite and Jewish texts. The focus is on three broad domains of literature: the Hebrew Bible, Second Temple sources, and rabbinic midrash. Prereq: 2 yrs of Biblical Hebrew & Grad standing, or consent of instructor
Typically Offered: Occasionally

HEBR-BIB 990 Research and Thesis Credits: 2 - 9
Prereq: Cons inst
Typically Offered: Occasionally

HEBREW-MODERN

HEBR-MOD 101 First Semester Hebrew Credits: 4
For students with little or no previous knowledge of Hebrew. Basic communication skills; speaking, reading, writing modern Hebrew; elements of grammar and syntax. Prereq: None - Open to All Undergrads
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HEBR-MOD 102 Second Semester Hebrew Credits: 4
Continuation of 101. Prereq: Hebrew Mod 101
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HEBR-MOD 201 Third Semester Hebrew Credits: 4
Readings from modern Hebrew texts, intermediate grammar and syntax, development of oral proficiency, emphasis on class discussions. Prereq: Hebrew Mod 102
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HEBR-MOD 202 Fourth Semester Hebrew Credits: 4
Continuation of 201. Prereq: Hebrew Mod 201
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HEBR-MOD 301 Introduction to Hebrew Literature Credits: 3
Selected works for different periods and genres; class discussions in Hebrew. Prereq: Jewish Studies 202
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HEBR-MOD 302 Introduction to Hebrew Literature Credits: 3
Continuation of 301. Prereq: Jewish Studies 301
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HEBR-MOD 401 Topics in Modern Hebrew / Israeli Literature and Culture I Credits: 3
Readings in Hebrew literature, class conducted in Hebrew. Prereq: Jewish Studies 302.
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
HEBR-MOD  402 Topics in Modern Hebrew / Israeli Literature and Culture II Credits: 3
Continuation of 401.  Prereq:  Jewish Studies 401
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY

HISTORY   101 Amer Hist to the Civil War Era, the Origin & Growth of the U S Credits: 4
American political, economic, and social development from the founding of the colonies to the Civil War.  Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY   102 American History, Civil War Era to the Present Credits: 4
American political, economic and social development from the Civil War to the present.  Prereq: Open to All Undergrads
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY   103 Introduction to East Asian History: China Credits: 3 - 4
Survey of major developments in Chinese history from 1500 B.C. to the founding of the Communist state in 1949. Emphasis on patterns and themes; equal time devoted to the classical and traditional period and the modern era.  Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY   104 Introduction to East Asian History: Japan Credits: 3 - 4
Survey of major cultural, social, political and economic developments in Japanese history from ancient to recent times.  Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY   105 Introduction to the History of Africa Credits: 3 - 4
Major historic and current problems in African life, as seen by Africans.  Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY   107 The History of the University in the West Credits: 3 - 4
The history of the university in the Western world from its beginnings in the 10th century to the present. Concentrates on universities, students, and professors in Italy, France, England, Germany, and the United States.  Prereq: Open to All Undergrads
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY   108 Introduction to East Asian History - Korea Credits: 3 - 4
Survey of major cultural, social, political, and intellectual developments in Korea from the 10th century to the 21st century.  Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY   109 Introduction to U.S. History Credits: 3 - 4
Exploration of a thematic or chronological area of United States history from a variety of critical historical perspectives. Topics vary by instructor.  Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY   110 The Ancient Mediterranean Credits: 4
An examination of the evolution of the human community in the Mediterranean Basin, from the beginning of the earliest civilizations in the Near East (3,000 B.C.E.) until the collapse of the Roman Empire in the West (500 C.E.).  Prereq: Open to all Undergrads
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HISTORY 111 Culture & Society in the Ancient Mediterranean Credits: 3 - 4
This course provides students with a thematic and cross-cultural introduction to the ancient Mediterranean world from prehistoric times to Late Antiquity. Students will gain a sense of chronological change and cultural diversity by looking at a series of case studies arranged around a weekly theme. These examine the connectivity and isolation of communities across the Mediterranean world, varieties of political organization and social relations, as well as economic structures. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 112 The World of Late Antiquity (200-900 C.E.) Credits: 4
History of the Mediterranean World from the late Roman Empire to the development of distinct European, Byzantine and Islamic civilizations (ca. 200-900 CE). Special attention will be paid to the rise and development of Christianity and Islam. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 115 Medieval Europe 410-1500 Credits: 4
From the later Roman Empire to the end of the Middle Ages. Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 118 Early Modern World Credits: 3 - 4
An introduction to world history, 1450-1800, when new connections were forged between continents and, arguably, "the world" became one place. We shall study travelers, merchants, refugees, and empires, and the objects that bound them together: Ming porcelain and silk, woolen blankets and calico, silver and cochineal. We shall explore changing understandings of boundaries, oceans, travel, and "the world" itself. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

HISTORY 119 The Making of Modern Europe 1500-1815 Credits: 4
Principal developments in the history of Europe from the Renaissance to the fall of Napoleon. Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 120 Europe and the Modern World 1815 to the Present Credits: 4
Political, economic, social, and cultural history of modern Western civilization. Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 123 English History: England to 1688 Credits: 3 - 4
Political, economic, social, and cultural history from earliest historic times. Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 124 British History: 1688 to the Present Credits: 4
Political, economic, social, and cultural history of Great Britain. Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 125 Green Screen: Environmental Perspectives through Film Credits: 3
From Teddy Roosevelt's 1909 African safari to the Hollywood blockbuster King Kong, from the world of Walt Disney to The March of the Penguins, cinema has been a powerful force in shaping public and scientific understanding of nature throughout the twentieth and twenty-first century. How can film shed light on changing environmental ideas and beliefs in American thought, politics, and culture? And how can we come to see and appreciate contested issues of race, class, and gender in nature on screen? This course will explore such questions as we come to understand the role of film in helping to define the contours of past, present, and future environmental visions in the United States, and the
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall
HISTORY 129 Africa on the Global Stage Credits: 3 - 4
Explores the interplay between Africa and the World from the 19th century to the present, covering subjects such as the slave-trade, repatriation, Africanizing of culture in the Americas and Europe, the spread and revival of world religions, colonialism, global capitalism, the rise of global popular culture such as pop music and video films, environmental concerns and global epidemics. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

HISTORY 130 An Introduction to World History Credits: 3 - 4
Introduction to major themes in world history. Such themes might include: empire and imperialism, environmental impacts, global trade and globalization, war, migration, gender, race, religion, nationalism, class, and the like. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 131 Introduction to Christianity: Jesus to the Present Credits: 4
Survey of Christianity from its beginnings to its diverse global manifestations today, including beliefs, institutions, ritual, lived experience, and interactions with broader culture and society. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 134 Women and Gender in World History Credits: 3 - 4
A global (comparative and transnational) survey of women and gender from the ancient world to the modern period. Introduces students to key issues in the history of women and gender, including the historical construction of identities, roles, symbols, and power relationships. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

HISTORY 135 Colloquium in Comparative World History Credits: 4
Prereq: Open to All Undergrads
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 139 The Middle East in the 20th Century Credits: 3 - 4
Partition of the Ottoman Empire; rise of independent states; French, British, United States, and Soviet involvement; the cold war; Arab-Israeli conflict. Prereq: Open to All Undergrads except first semester Fr
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 142 History of South Asia to the Present Credits: 3 - 4
Survey of the development of societies within the Indian subcontinent. Equal segments for the ancient, medieval and modern periods. Open to all undergrads. Prereq: Open to All Undergrads
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 144 Traveling the World: South Asians in Diaspora Credits: 4
Millions of South Asians left their home in the Indian subcontinent to travel the world across the Indian Ocean to Africa, the Middle East and Southeast Asia; across the Atlantic Ocean to the Caribbean and Britain; and across the Pacific Ocean to Fiji and California. This course follows these Indian traders, political leaders, workers and pilgrims as they discovered the world beyond India. The cultural, social, economic and political experiences of these sojourners and settlers reveals an exciting transnational perspective on the history of migration, diaspora, nationalism and colonialism in India, Africa, Asia, America and Britain. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

HISTORY 150 American Histories: The Nineteenth Century Credits: 4
An introduction to the major themes of U.S. history from nationhood to emergence as a world power. An exploration of the range of primary sources available to U.S. historians and the varieties of historical argument. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall
HISTORY 160 Asian American History: Movement and Dislocation Credits: 3 - 4
Examines the impact of colonialism, war, and capitalism on the movement of Asians to the U.S. Considers how racial, gendered, class, sexual, and national formations within the U.S. structured Asian immigration to North America. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 161 Asian American History: Settlement and National Belonging Credits: 3 - 4
Examines the social, cultural, and political citizenship of Asians in the U.S. with particular emphasis on diaspora, transnationality, and place. Prereq: Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 199 Directed Study Credits: 1 - 3
Prereq: Open to Fr & So with cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 200 Historical Studies Credits: 3
Introduction to historical studies at the research university. Emphasis on interpretation and critical thinking. Small-group discussion and intensive writing. Topics vary. Prereq: Open to Fr & So only
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 201 The Historian's Craft Credits: 3 - 4
Students conduct original historical research and convey the results to others. Through engagement with archival materials, undergraduates become historical detectives; they practice defining important historical questions, collecting and analyzing evidence, presenting original conclusions, and contributing to ongoing discussions. Students confer individually with and receive feedback from instructors to improve their skills of historical analysis and communication in both written and spoken formats. Requirements include at least 30 pages of writing - including drafts - and two or more formal oral presentations, each totaling at least five minutes. Upon successful completion of this course,
General Education: COM B  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 205 The Making of the Islamic World: The Middle East, 500-1500 Credits: 3 - 4
Development of society and culture in the Middle East and North Africa from the emergence of Islam (7th century) to early modern times. Prereq: Open to All Undergrads
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 208 Western Intellectual and Religious History to 1500 Credits: 3 - 4
Survey of key themes in Western intellectual history and religious thought from ancient Greece through the Renaissance, focusing on relationships among classical, Jewish, and Christian traditions. Prereq: Sophomore standing or one HISTORY course or one REL ST course
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 209 Western Intellectual and Religious History since 1500 Credits: 3 - 4
A survey of major trends in Western intellectual history and religious thought in the modern era, a period that saw a new range of competing ideas about the divine, the human condition, justice and the social order, and the quest for meaning. The course explores shifts in Christian and Jewish thought as well as secular alternatives to religious outlooks. Topics include the impact of the Reformation, Scientific Revolution, and Enlightenment; radical critiques of religion; existentialism; theological responses to World Wars and the Holocaust; and civil rights and social justice. Sources include films, novels, autobiographies, essays, theological works, and political manifestos.
Prereq: Sopho
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

HISTORY 212 The History of Western Christianity to 1750 Credits: 4
A survey of Christianity from being a small, persecuted sect in the Roman Empire to becoming the dominant religion of western Europe, penetrating into the lives of Europeans, fissuring into multiple churches, and spreading across the globe. Attention is given to doctrine, ritual, worship, architecture, images, and music. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HISTORY 213 Jews and American Pop. Culture Credits: 3 - 4
Explores the interplay between Jews and U.S. popular culture, covering such subjects as early 20th century vaudeville, the "golden age" of Hollywood, rhythm and blues music, television, and stand-up comedy. Prereq: None
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 215 Life in the Middle Ages: An Inter-Departmental Course Credits: 3 - 4
An introduction to the life and culture of the Middle Ages with lectures from members of the departments offering courses within the Medieval Studies Program. Prereq: So st
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 219 The American Jewish Experience: From Shtetl to Suburb Credits: 4
Surveys American Jews from the eighteenth century until after WW II, examining political behavior (radicalism, liberalism, and nationalism), class formation, social mobility, culture, inter-ethnic group relations, religion, and problems in community building. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 220 Introduction to Modern Jewish History Credits: 4
The history of the Jews in selected parts of the world since the 17th century. Particular attention will be paid to the fact that this is the history of a minority group whose life unfolds in relationship to a larger society. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 221 Explorations in American History (H) Credits: 3 - 4
Topics vary reflecting the interests, expertise, and innovating intention of the instructor. Prereq: Sophomore standing. May receive credit only once for each topic taken
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 223 Explorations in European History (H) Credits: 3 - 4
Topics vary reflecting the interests, expertise, and innovating intention of the instructor. Prereq: Sophomore standing. May receive credit only once for each topic taken
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 224 Explorations in European History (S) Credits: 3
Topics vary reflecting the interests, expertise, and innovating intention of the instructor. Prereq: So st. May receive credit only once for each topic taken
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 225 Explorations in Third World History (H) Credits: 3 - 4
Topics vary reflecting the interests, expertise, and innovating intention of the instructor. Prereq: Sophomore standing. May receive credit only once for each topic taken
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 227 Explorations in the History of Race and Ethnicity Credits: 3
Topics on racial/ethnic minorities in the US in historical perspective; or topics that intersect with race or ethnicity in the US; or comparative historical topics that address how racial/ethnic minorities in the US negotiate exclusion and marginalization. Prereq: None
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 228 Explorations in Transnational/Comparative History (Social Science) Credits: 3
Explores topics that involve at least two continents. Topics vary reflecting the interests, expertise, and innovating intention of the instructor. Prereq: Sophomore standing. May receive credit only once for each topic taken
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HISTORY 229 Explorations in Transnational/Comparative History (Humanities) Credits: 3
Explores topics that involve at least two continents. Topics vary reflecting the interests, expertise, and innovating intention of the instructor. Prereq: Soph St. May receive credit only once for each topic taken
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 230 Judaism, Christianity, and Islam: Braided Histories Credits: 3
An examination of the braided histories of Judaism, Christianity and Islam from 2000 BCE to 2000 CE, emphasizing their theological, cultural, and political relationships. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

HISTORY 240 Colonial Latin America from Conquest to Insurgency Credits: 4
Pre-Columbian cultures; conquests by Spain and Portugal; socioeconomic, cultural, and political dynamics of colonial life; background of independence crisis. Prereq: Open to all Undergrads
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 241 Latin America from 1780 to 1940 Credits: 4
Latin America from the Age of Revolution to the World Depression. Nation-state formation; rise of political conflict and socioeconomic inequality. Prereq: Open to all Undergrads
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 242 Modern Latin America, 1898 to the Present Credits: 4
Human and political dynamics of state-directed development; neoliberalism. Nature and consequences of foreign intervention. Prereq: Open to all Undergrads
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 244 Introduction to Southeast Asia: Vietnam to the Philippines Credits: 4
Southeast Asian history, religion, folklore and literatures, educational systems, and politics from the early classical states to contemporary social, literary, and political developments. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 245 Chicana and Latina History Credits: 3
Introduces the cultural, economic, social, and political history of Chicanas and Latinas in the U.S. and focuses on four major themes: contact between different ethnic/racial groups; ideas of nation and nationalism; constructions of identity; and struggles for social justice. Prereq: Open to Fr Ethnic Studies: Yes General Education: COM B L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 246 Southeast Asian Refugees of the "Cold" War Credits: 4
In-depth study of the peoples, conflicts, and wars in Cambodia, Laos, and Vietnam, with emphasis on the Cold War era (1945-1990) and on the resulting migration and resettlement of over one million Hmong, Khmer, Lao, and Vietnamese in the United States. Prereq: Open to Fr Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

HISTORY 248 Globalization and Crises Credits: 3 - 4
Since 2008, leaders and politicians have constantly been defining, avoiding and responding to political, economic and cultural crisis. Concern about crises is not new and learning about how people around the world have responded to crises in the past could definitely help us respond to our present crises and perhaps pave the way to a better future. This course will examine various economic, political, cultural and intellectual crises from the early modern period to the present, and focus on how people have tried to make sense of them and go beyond them. At the same time, we will attempt to provide a historical framework that takes into account discussions of globalization avant la lettre, suc
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
As much as we may try to convince ourselves that sport offers an escape from the "real world," constant news of players' strikes, stadium financing controversies, and the lack of diversity in league management remind us that we cannot separate the games we play and watch from the political, social, and cultural contexts in which they are embedded. With this in mind, this course explores how sport has shaped and been shaped by major trends in American social, political, and economic history. Lectures and discussion sections will not focus on player stats or the morning edition of SportsCenter. Instead, students will engage with serious historical arguments and debates about sport's relations.

L&S Breadth: Humanities or Soc Sci  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

Contemporary India society as a joint product of the classical heritage and world-wide movements toward nationalism; social and economic development. Prereq: Open to Fr

L&S Breadth: Humanities or Soc Sci  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

Comprehensive interdisciplinary survey of Russian civilization from its beginnings through the present day. Prereq: Open to Fr

L&S Breadth: Humanities or Soc Sci  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

Multidisciplinary and historical perspectives on the East Asian civilizations of China, Japan, Korea, Tibet and Mongolia from prehistory to the present, including developments in philosophy, economy, governance, social structure, kinship, geography, etc. Prereq: Open to Fr

L&S Breadth: Humanities or Soc Sci  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts: cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.

L&S Breadth: Social Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

This course surveys the development of American law down to the U.S. Civil War. After a review of the English historical background, it examines how law changed in colonial America, culminating in the framing of the U.S. Constitution. It then explores how territorial expansion, democracy, and slavery shaped nineteenth-century American law. Emphasis is on how law interacts with political, social, and cultural change, with a focus on the origins of modern civil and constitutional rights. Prereq: Sophomore standing

L&S Breadth: Humanities or Soc Sci  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

This course surveys the development of American law from the Civil War to the early Twenty-First Century. After a review of the U.S. Constitution and its modification by the Civil War amendments, it examines the legal dimensions of such topics as race relations and the Civil Rights movement, the growth of modern business, the New Deal, labor rights, the women's movement, the individual rights revolution of the postwar period, and the contemporary conservative reaction. Emphasis is on how law interacts with political, social, and cultural change. Prereq: Sophomore standing

L&S Breadth: Humanities or Soc Sci  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring
HISTORY 264 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

HISTORY 265 An Introduction to Central Asia: From the Silk Route to Afghanistan Credits: 3
Examination of human geography, ethnicity, nomadism and pastoralism, oases cultures, religion and international politics of the silk routes of central Asia. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 267 Asian Religions in Global Perspective Credits: 3
Comparative and thematic introduction to diverse Asian religious traditions, ideas and communities, and their relevance to human societies of the past and present. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 269 War, Race, and Religion in Europe and the United States, from the Scramble for Africa to Today Credits: 3 - 4
This course investigates the complex history of European and American violence and war-making through the lens of race and religion. Taking a comparative approach, we analyze several major conflicts of the twentieth century, from World War I to the wars of decolonization, and from the genocide of the Herero peoples to the Armenian Genocide, the Holocaust, and beyond. How did religious forces and racial claims shape these conflicts? How did these wars reinforce the modern notion of the nation-state, and strengthen both racist and anti-racist movements? Key topics in the class include the genealogy of the modern idea of "race" in Europe and the U.S.; the drive towards a world of more homogene
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 270 Eastern Europe since 1900 Credits: 3 - 4
This class introduces students to the dramatic history of twentieth-century Eastern Europe, a place where imperialism, Nazism, Communism, genocide, democracy, and capitalism all left their mark. The course revolves around three interrelated themes--war, revolution, and society--all of which allow us to place Eastern Europe within broader comparative contexts. In addition to exploring significant political, economic, and cultural changes, we'll discover how ordinary people--including workers, peasants, women, and children--experienced attempts to change the region and its people. Throughout, we will discuss how East Europeans continue to wrestle with the ghosts of their past today. Prereq:
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 271 History Study Abroad: European History Credits: 1 - 4
Topics vary reflecting the specializations, expertise, and curricula of study abroad programs. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

HISTORY 272 History Study Abroad: United States History Credits: 1 - 4
Topics vary reflecting the specializations, expertise, and curricula of study abroad programs. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

HISTORY 273 History Study Abroad: Non-Western History Credits: 1 - 4
Topics vary reflecting the specializations, expertise, and curricula of study abroad programs. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

HISTORY 274 History Study Abroad: Transnational/Global History Credits: 1 - 4
Topics vary reflecting the specializations, expertise, and curricula of study abroad programs. Prereq: Preparation for and participation in a UW-approved study abroad program
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable
HISTORY 275 Topics in LGBT History Credits: 3
Topics in the major issues and themes in lesbian, gay, bisexual, and transgender history, considered across race, class, nationality, and time. Prereq: So st or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 276 Chinese Migrations since 1500 Credits: 3 - 4
Introduces the comparative history of Chinese migrations to the U.S. and world. Examines patterns of movement; imagined communities through cultural identity, citizenship, queerness, heritage tourism, studying abroad, and transnational adoption; as well as sites of cultural production such as food, literature, architecture, and cinema. Prereq: Sophomore standing or consent of instructor
Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 277 Africa: An Introductory Survey Credits: 4
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

HISTORY 278 Africans in the Americas, 1492-1808 Credits: 3 - 4
Topics include demography and structure of the slave trade, but major focus on continuities and transformations of African cultures and social structures in the Americas--ethnicity, religion, kinship, gender, oral tradition, creolization, etc. Prereq: So st
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

HISTORY 279 Afro-Atlantic History, 1808-Present Credits: 3 - 4
Emphasis on the history of political, social, and intellectual movements. Topics include slave resistance, freedom, black nationalism, socialism, anti-colonialism, gender, religion, art, literature, race, and medicine. Prereq: So st
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HISTORY 283 Intermediate Honors Seminar-Studies in History (H) Credits: 3
Topics vary. Prereq: Open to Fr or So st & cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 297 African and African-American Linkages: An Introduction Credits: 4
Analysis of retention of African elements in African-American oral, written, and material culture. Social, cultural, and political issues regarding race, self-definition, and self-determination in both Africa and North America will be examined. Prereq: Open to Fr
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

HISTORY 302 History of American Thought, 1859 to the Present Credits: 3 - 4
How thinkers have coped with the intellectual shocks of Darwin, Marx, and Freud, and with cultural shocks ranging from Gilded Age industrialization to the changing mores and nuclear realities of contemporary mass society. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 303 A History of Greek Civilization Credits: 3 - 4
From the Bronze Age to the Hellenistic Age. Special emphases may vary with each offering. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 304 United States, 1877-1914 Credits: 3 - 4
The rise and impact of modern industrialism, organization of labor and farmers, disappearance of the frontier, growth of American imperialism, and the resulting political, intellectual, and social changes in America. Prereq: Sophomore standing
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
HISTORY 305 United States 1914-1945 Credits: 3 - 4
Political, social, economic, and cultural changes in America during World War I, the Twenties, the Age of the Great Depression, World War II. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 306 The United States Since 1945 Credits: 3 - 4
Political, social, economic, and cultural changes in the U.S. from World War II to the present. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 307 A History of Rome Credits: 3 - 4
Roman civilization from the monarchy through the collapse of the Roman Empire in the west. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 308 Introduction to Buddhism Credits: 3 - 4
The basic thought, practices and history of Buddhism, including selflessness and relativity, practices of meditation, merit-making and compassion from both local and translocal perspectives. Includes a discussion of Buddhism as a contemporary, North American religion. Prereq: Open to Freshmen
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 309 The Crusades: Christianity and Islam Credits: 3 - 4
An examination of the Crusades from both Christian and Islamic perspectives; the historical, social, and religious context and significance of the Crusades for both Christians and Muslims. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 312 The Medieval Church Credits: 3 - 4
The course covers the formation and development of ecclesiastical institutions and religious life in Western Europe from the fourth century to the Protestant Reformation. Prereq: Open to Fr with cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 313 Introduction to Byzantine History and Civilization Credits: 3 - 4
Topical consideration of the entire scope of the history of the Byzantine Empire, from the fourth to the fifteenth centuries, and selected aspects of its culture. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 314 Problems in Byzantine History and Civilization Credits: 3 - 4
Intensive study of specific areas of the Byzantine Empire's history and culture, selected by agreement between instructor and students, stressing individual research efforts. Prereq: So st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 315 Gender, Race and Colonialism Credits: 3
Investigates how gender and race were socially constructed in cultural encounters between Europeans and "other" peoples in Africa, Asia, and the Americas. Prereq: Gen & WS 101, Gen & WS 102 or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 318 Medieval Social and Intellectual History, 1200-1450 Credits: 3 - 4
Emphasis on social change and intellectual developments. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 319 The Vietnam Wars Credits: 3 - 4
Explores the prolonged cycle of wars in Vietnam and its neighbors, 1940 to date, with due regard for both local and U.S. perspectives. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HISTORY 320 Early Modern France, 1500-1715 Credits: 3 - 4
Social, cultural and political history of France (1500-1715): Renaissance; Reformation and Wars of Religion; Rise of absolutist monarchy; Popular culture and peasant life; Colonization and New France. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 321 Afro-American History Since 1900 Credits: 3 - 4
Survey of African American history from 1900 to the present. Topics covered include segregation, the Civil Rights Movement, the political, social and cultural changes of the late 20th century, and the Obama presidency. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 322 Afro-American History to 1900 Credits: 3 - 4
Survey of African American history from its roots in Africa to the end of the 19th century. Topics considered include the slave trade, the political and cultural practices of enslaved communities, forms of resistance, Reconstruction, and systems of segregation. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 323 The Scientific Revolution: From Copernicus to Newton Credits: 3
An introduction to the formative period of modern science, including major ideas and events in the physical and life sciences from Copernicus to Newton. Prereq: Jr st or cons inst. Grads enroll concurrently in Hist Sci 623
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 324 Science in the Enlightenment Credits: 3
Development and triumph of Newton's gravitational law; the conceptual revolution in chemistry; earth history and the move from religious to natural cosmologies. 4th credit requires extra work. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 328 Environmental History of Europe Credits: 3
This class explores a new approach to a part of the world with a very old history, but one that is now as 'modern' as any. The changing, complex relations between Europeans and their environments from antiquity to the twenty-first century offer instructive comparison with American and current global environmental concerns. Approaching Mediterranean and Western civilizations from an environmental viewpoint also offers fresh perspective on these enduring cultures. Prereq: Sophomore Standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 329 History of American Capitalism Credits: 4
Survey of political, social, and economic change in the history of American capitalism from the late colonial period to the near-present. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 332 Islam Reform and Revolution in Central Asia Credits: 3 - 4
Muslim societies of Central Asia and the Caucasus in relationship to Russia and later the U.S.S.R., China, Iran, and Afghanistan among other states. The focus is the process of socio-cultural and political change from 1800 to the present. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 333 The Renaissance Credits: 3 - 4
Emphasis on the transition from medieval to early modern thought in Italy, 1300-1525. Prereq: So st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 334 The Reformation Credits: 3 - 4
The division of Western Christendom, 1500-1650, and its impact on Europe and the world. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
HISTORY 335 Korean History, 1945 to present  Credits: 3 - 4
A historical examination of North and South Korea politics, society, and culture from 1945 to present.  Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 336 Chinese Economic and Business History: From Silk to iPhones  Credits: 3 - 4
This is an intermediate-level course on Chinese economic and business history that covers both pre-modern and modern China. The approach is historical; no prior knowledge of economics is required. Topics addressed include: how people thought about property, labor, and value, money and the banking and financial systems, development of domestic and international markets and trade, major industries, the search for resources, agricultural economy, the connection of law and economy, organizations that affected the economy, systemic changes during the Republic and People's Republic, China's participation in international economic institutions, and more.  Prereq: Sophomore standing or one class in
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 337 Social and Intellectual History of China, 589 AD-1919  Credits: 3 - 4
The culture of the literati in the T'ang; major trends of Neo-Confucianism during the Sung and Ming; the Confucian response to the West in the nineteenth century; the emergence of the modern Chinese intelligentsia and iconoclasm in the early May Fourth period.  Prereq: Sophomore standing or Hist 103
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 341 History of Modern China, 1800-1949  Credits: 3 - 4
The disintegration of traditional Chinese society under the impact of Western imperialism, the rise of modern Chinese nationalism, and the emergence of modern revolutionary movements and ideologies.  Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 342 History of the Peoples Republic of China, 1949 to the Present  Credits: 3 - 4
The social, economic and political transformation of China under Communism; the role of ideology in contemporary Chinese historical development; the nature of that historical development in the comparative perspective of other post-revolutionary histories.  Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 343 Colonial British North America  Credits: 3 - 4
The development of Britain's North American colonies c. 1550-1763 in trans-Atlantic perspective. Topics include the natural environment; British imperial and cultural institutions; relations with other European settlers and Amerindians; Africans and slavery; community life; religious diversity; economic enterprise; and politics. Satisfies either the Social Studies or the Humanities breadth requirement.  Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 344 The Age of the American Revolution, 1763-1789  Credits: 3 - 4
Structure of American society, Britain and the Colonies; the revolutionary movement for independence; the war for independence; social, political, and constitutional change.  Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 345 Military History of the United States  Credits: 3 - 4
The founding and growth of the military establishment, the exercise of the military art, and military policies treated in connection with relevant political, social, and economic factors.  Prereq: Sophomore standing; not open to students who have previously taken History 427 or 428
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
Throughout recorded history, humans have conceptualized categories of sex and gender in a variety of ways; some have elaborated just two main sex/genders, others have elaborated more than two categories. At the same time, regardless of how a given culture has defined sex and gender and the behaviors and appearances deemed appropriate, humans have always exceeded those definitions. Quite simply, the determination of male and female and any other sex or gender category is neither obvious nor simple: what is sex, what is gender? Do they reside in the body, behavior, psyche, clothing, or social processes such as racialization? To make matters still more complicated, cultural beliefs about sex/gender are influenced by factors such as race, class, and socioeconomic status.

**L&S Breadth:** Humanities  
**L&S Level:** Intermediate  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Every Other Spring
HISTORY 355 Work, Freedom and Democracy in the Americas, 1491-the Present Credits: 3
This course takes a broad view of the experiences, ideas and impact of working people in the Americas from the
economic, cultural and biological ruptures caused by the first trans-Atlantic trade to the most recent phase of
globalization in the 21st century.  Prereq:  Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

HISTORY 357 The Second World War Credits: 3 - 4
Background and history of World War II. Problems of peacemaking and international organizations; rise of
Fascism, National Socialism, and Japanese imperialism; breaking the peace; World War II.  Prereq:  Sophomore
standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall,
Spring, Summer

HISTORY 358 French Revolution and Napoleon Credits: 3 - 4
Explores the French Revolution and the Age of Napoleon. Why did Revolution break out in one of the most
powerful and traditional monarchies of Europe? What were the roots of discontent and the sources of
revolutionary ideas? Probes the exciting twists and turns of revolutionary politics and the attempt to spread "liberty
& equality" into ordinary life, even abolishing slavery in response to massive slave revolt in the French colonies.
Asks how the French interacted with a transnational revolutionary movement across Europe, the US, and the
Atlantic world. Though focused on a specific revolutionary era, the course also aims to reflect on timeless
questions: Why is it so difficult to create dem
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall,
Spring, Summer

HISTORY 359 History of Europe Since 1945 Credits: 3 - 4
Political, cultural, and social history of Europe from the Second World War to the present.  Prereq:  So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring,
Summer

HISTORY 360 The Anglo-Saxons Credits: 3
Life and literature during the Old English period (c450-c1100). Primary emphasis on the vernacular and Latin
writings of the Anglo-Saxons themselves. Extensive historical and archaeological background; attention to the
development and character of monasticism, to the production of manuscripts, etc. All reading in translation.
Students who have taken English 360 prior to fall 2014 may not enroll in the course.  6 credits of
introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring,
Summer

HISTORY 361 The Emergence of Mod Britain: England 1485-1660 Credits: 3 - 4
Cultural, economic, political, and social issues and developments, foreign relations; the background of empire.
Prereq:  So st or History 123-124
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 363 China and World War II in Asia Credits: 3 - 4
This course is intended to help students understand World War II from the perspective of Asia. The focus is not
only on the American and Japanese roles in the war but also on lesser, often overlooked participants such as
China, Korea, and Southeast Asia. The course will focus not only on the diplomatic, political, and military situation
of wartime Asia, but also on perceptions and experiences of the war from those most heavily affected by it: those
experiencing it on the ground. Understanding this war is critical for helping us understand contemporary Asia. The
foundations of the Cold War and the post-Cold War world that we live in today were forged on battlefields in
mainland China, Burma,
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every
Other Spring

HISTORY 367 Society and Ideas in Shakespeare's England Credits: 3 - 4
Explores the relationship between social change and the major systems of thought in Tudor and Stuart England.
Popular magic and religion, astrology, witchcraft, the varieties of Anglican protestantism and puritan dissent, the
scientific revolution and political thought.  Prereq:  Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall,
Spring, Summer
HISTORY 368 The Bible in the Middle Ages Credits: 3
Medieval Bible and its shaping effect on medieval culture. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 373 Modern Political History of the Jews: 1655-1919 Credits: 4
Focusses on the politics of emancipation (the acquisition of civil rights). Analyzes Jewish politics from the beginnings of political integration into European society (1695) to the completion of the process in the aftermath of World War I.
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

This course will focus on Jewish socialist and nationalist political movements, analyzing their origins in imperial Russia in the late 19th century and their development in the Soviet Union, Poland, Palestine/Israel, and the U.S. in the 20th century.
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 377 History of Africa, 1500 to 1870 Credits: 3 - 4
Studies of Ottoman and European expansion into Africa. The slave trade and unique internal dynamics in African cultures and societies during the period 1500-1870. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 378 History of Africa Since 1870 Credits: 3 - 4
From the European conquest: resistance movements, African social history, the politics of independence. Emphasis on Africa south of the Sahara. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 379 Islam in Iran Credits: 3
History of Islam in Iran from Arab conquest in the seventh century to the Islamic Revolution in 1978-89. Prereq: So st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 391 The Age of Jefferson and Jackson, 1789-1848 Credits: 3 - 4
Establishment of the national government, growth of democracy and the nature of party development, westward expansion, economic change, slavery, and social reform. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 392 Women in History Credits: 3 - 4
An examination of the cultural, social, economic, and political activities of women. Geographical or chronological emphasis varies with instructor. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 393 Slavery, Civil War, and Reconstruction, 1848-1877 Credits: 3 - 4
African-American slavery and its impact on mid-19th century social, political, and economic life; the causes, course, and consequences of the Civil War; the rise and fall of postwar Reconstruction and non-racial citizenship; the impact of these histories on contemporary American society. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring

HISTORY 394 Science in America Credits: 3
From the colonial period to the present; emphasis on the development of scientific institutions and the influence of science on American life. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
HISTORY 403 Immigration and Assimilation in American History Credits: 3 - 4
Survey of immigration to the U.S. from colonial times to the present with analyses of the roles of ethnic and racial groups in economics and politics, the reactions of earlier arrivals to their successors, the extent of assimilation and contemporary ethnic and racial consciousness. Prereq: So st
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 408 American Labor History: 1900-Present Credits: 3 - 4
An examination of work, workers, and working class culture in twentieth century America. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 410 History of Germany, 1871 to the Present Credits: 3 - 4
Political and social development of Central Europe from the establishment of the German Empire to the post-World War II period. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 412 History of American Education Credits: 3
This course examines the history of education in America from the colonial period to the present, including the rise of common (public) schools; the education of populations differing by race, ethnicity, gender, language, religion, and social class; the development of school curricula; the politics of desegregation, bilingual education, and special education; and the evolving federal role in American education. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 416 Eastern European Jews in the United States, 1880s-1930s Credits: 3 - 4
Analyzes the culture and community of the two million Jews who migrated to the United States between 1880 and 1930.
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 417 History of Russia Credits: 3 - 4
Origins and evolution of the Russian people and state; political, economic, and social history; foreign relations as they affect domestic policy; from the ninth century to 1800. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 418 History of Russia Credits: 3 - 4
Russian political, economic, and social history from 1800 to 1917; foreign relations as they affect domestic policy.
Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 419 History of Soviet Russia Credits: 3 - 4
Major political, economic and social developments in Russia since 1917. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 420 Russian Social and Intellectual History Credits: 3 - 4
Main currents of Russian social thought in the eighteenth and nineteenth centuries. Recommended that students have some knowledge of modern Russian history or of modern European cultural history. Prereq: So st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 422 Latino History and Politics Credits: 3
Students will examine the historical, social, political, economic, and cultural experiences and conditions of Latinos, the second largest US racial/ethnic minority group. Course focus is on people who trace their origins to Mexico, the Caribbean, and countries of Latin America. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
HISTORY 424 The Soviet Union and the World, 1917-1991 Credits: 3 - 4
Surveys Soviet foreign relations from 1917-1991, examining the causes, course, and outcome of the Cold War. Topics include: Soviet-US relations, World War II, the Socialist Bloc, espionage, the space race, Sino-Soviet relations, and Soviet intervention in the 'Third World.' Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 425 History of Poland and the Baltic Area Credits: 3 - 4
Northern part of East Central Europe, the territory included in the former Polish-Lithuanian Commonwealth. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 426 The History of Punishment Credits: 3 - 4
This course examines punishment across a vast range of historical traditions, examining how wrongdoing and punishment have been figured in law, literature, art and philosophy. Through the semester we will examine ancient, medieval and modern traditions. Prereq: Junior or Senior standing or consent of instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 427 The American Military Experience to 1902 Credits: 3 - 4
A survey of American military experience from the 16th century through the development of a nascent American "empire" at the turn of the 19th and 20th centuries, examining the influence of warfare on all aspects of American society. Prereq: Soph st; not open to stds who have previously taken History 345
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 428 The American Military Experience Since 1899 Credits: 3 - 4
A survey of American military experience in the 20th and 21st centuries, examining the influence of warfare on all aspects of American society. Prereq: Soph st; not open to students who have previously taken History 345
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 431 History of Scandinavia to 1815 Credits: 3
Political, social, economic and cultural developments of Scandinavia through the "Viking Age" to the break-up of Sweden-Finland and Denmark-Norway; emphasis on the interplay between social and political forces and institutions and the area's relationship with the rest of Europe. Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 432 History of Scandinavia Since 1815 Credits: 3
Political, social, economic, and cultural development: political realignments and rise of nationalism, industrialization and rise of liberalism and socialism, democratization, independence struggles and social conflict, evolution of welfare states, World War II and its aftermath. Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 434 American Foreign Relations, 1901 to the Present Credits: 3 - 4
America's relations with the world, emphasizing the economic, political and ideological elements determining policy. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 435 Colony, Nation, and Minority: The Puerto Ricans' World Credits: 3
A historical introduction to the Puerto Rican experience, from island to mainland. Varieties of colonial rule, social institutions, cultural processes, and ethnic and national identity. Migration to the U.S. and social dynamics of stateside communities. Prereq: Junior standing or higher
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 437 Western Christianity from Augustine to Darwin Credits: 4
A survey of Christianity from the fourth century through the nineteenth. Explores the culture of Christianity--architecture, literature, images, and mosaic--in order to understand how Christianity has become a world religion. Prereq: Open to Fr with cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
HISTORY 438 Buddhism and Society in Southeast Asian History  Credits: 3 - 4
Therevada Buddhism in Southeast Asia; ideas and basic tenets; history and its impact on social and political institutions; the monastic order and relations with the states; roles in the early history up to the present; focus on Thailand and Burma.  Prereq:  So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 439 Islamic History From the Origin of Islam to the Ottoman Empire  Credits: 3 - 4
Political action and organization in medieval Islam (ca 600-1500), with focus on selected states.  Prereq:  So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 441 Revolution and Conflict in Modern Latin America  Credits: 3 - 4
Comparative analysis of the relationship between socio-economic structure and political conflict in nineteenth and twentieth century Latin America. Cases, chosen to illustrate such outcomes as social revolution, authoritarian repression and electoral stalemate, vary each year.  Prereq:  So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 444 History of East Africa  Credits: 3 - 4
Formation of ethnic groups, state building, the development of pre-colonial trade institutions, and African social and political history in the colonial period.  Prereq:  So st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 445 History of Equatorial Africa  Credits: 3 - 4
Area south of Lake Chad and north of Southwest Africa and Zambia from the advent of the Iron Age to the present.  Prereq:  Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 450 Making of Modern South Asia  Credits: 3 - 4
Everything you ever hear about South Asia is true. But the exact opposite is also true. Tradition and modernity, development and stagnation, the past and the future all exist simultaneously, at times in harmony and at other times in conflict with one another. Through an exploration of the political, social and economic history of this region from the 18th century to the present day, students will learn about the making of modern South Asia and attempt to understand this paradox.  Prereq:  Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 452 World Forest History  Credits: 3
Examines world forest history, with attention to links between societal change and forest change. Examines how different peoples have used or abused the forest, how societies have struggled to establish policies governing forests, and how perceptions of forests have evolved.
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 454 Samurai: History and Image  Credits: 3 - 4
Japanese warriors, their ideals, and their images from the tenth century to the present.  Prereq:  Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 456 Pearl Harbor & Hiroshima: Japan, the US & The Crisis in Asia  Credits: 3 - 4
Events leading to the Pearl Harbor attack, the conduct of World War II in the Pacific, the nature of the wartime Japanese state and effects of the war on Japanese society, the dropping of the atomic bombs, and Japan's decision to surrender. The war as an epoch in Japanese history.  Prereq:  Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 457 History of Southeast Asia to 1800  Credits: 3 - 4
Formation and development of classical Indian and Chinese influenced societies in the area comprising present-day Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and the Philippines, and their meeting with Islam and the early Europeans.  Prereq:  Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
HISTORY 458 History of Southeast Asia Since 1800 Credits: 3 - 4
Effects of the modern Western revolution on the established societies of Southeast Asia through colonial rule and
economic and cultural change. Prereq: Jr st or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 459 Rule of Law: Philosophical and Historical Models Credits: 3 - 4
From the perspectives of history and political theory, this course examines the multiple meanings of the idea of
the rule of idea, and its uses in American history. We then explore prominent critiques of the rule of law ideal.
Prereq: A prev law-related crse
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 460 American Environmental History Credits: 4
Survey of interactions among people and natural environments from before European colonization to present.
Equal attention to problems of ecological change, human ideas, and uses of nature and history of conservation
and environmental public policy. Prereq: So st
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 461 The American West to1850 Credits: 3 - 4
North American frontiers through the period of the Mexican War. Major Indian cultures of North America; the
frontiers and differing imperial systems of Spain, France, and England; and the westward movement of the United
States through 1850. Prereq: So st
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 462 The American West Since 1850 Credits: 3 - 4
The West as frontier and region since 1850. Indian-white and other interethnic relations; federal policies; the
development of a resource-intensive economy, its environmental effects, and political conflicts accompanying it;
and the ideology of the frontier in American culture. Prereq: So st
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 463 Topics in South Asian History Credits: 3
Topics vary. Prereq: So st
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 464 Dimensions of Material Culture Credits: 3
Approaches to the interdisciplinary study of the material world in order to analyze broader social and cultural
issues. Guest speakers explore private and public objects and spaces from historic, ethnographic, and aesthetic
perspectives. Prereq: 1 course at the 300 level or above from ART HIST or DS
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 465 The American Economy to 1865 Credits: 3 - 4
Survey of the forces underlying American economic development and the distribution of income; rise of regional
economies; origins of manufacturing; effects of slavery; influence of government and politics on growth. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 466 The American Economy Since 1865 Credits: 3 - 4
Emergence of the large corporation; growth and instability since the mid-nineteenth century; increasing
government participation in the economy; the impact of war, depression, discrimination, and international
responsibilities. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 467 Economic and Social History of Europe 1500-1750 Credits: 3 - 4
Population trends, technology, and the level of economic activity; overseas expansion and its impact on Europe;
the northward shift of economic power; wealth and poverty in early modern society. Prereq: So st
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
HISTORY 468 Popular Culture in the Multi-racial United States Credits: 3 - 4
Origins and development of widely distributed popular culture in the nineteenth and twentieth centuries with emphasis on race and racialization. Exploration of production/performance and consumption of minstrel shows, wild west shows, film, radio, television, music in topical units. Prereq: So St
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 469 The Making of the American Landscape Credits: 4
Surveys the historical geography and environmental history of the United States by tracing the evolution of the American landscape from precolonial times to the present, with special emphasis on teaching students skills they can use to interpret landscape history themselves. Prereq: Sophomore standing or one course in HISTORY, GEOG or ENVIR ST
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

HISTORY 470 Religious Thought in Modern Europe Credits: 3 - 4
History of religious thought in modern Europe (19th and 20th centuries) as reflected in theology, philosophy, literature, and political and social theory. Major emphasis on Protestant and Roman Catholic traditions but with additional discussion of Judaism and Orthodoxy. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 472 Women in Turkish Society Credits: 3
Interdisciplinary analysis of women's issues in Turkish society from the Ottoman era imperial harem to Islamist feminist movements in the secular Republic of Turkey today. Emphasis on the critical use of a comprehensive set of disciplinary lenses. Prereq: So st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

HISTORY 474 European Social History, 1830-1914 Credits: 3 - 4
Societal change in an age of revolution; bourgeois culture and its discontents; class, gender, religion, region, and nation; formation of political ideologies, including liberalism, conservatism, socialism, anarchism, imperialism, and racism. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 475 European Social History, 1914-Present Credits: 3 - 4
State, class, gender, and culture from he world wars to the present. Democracy, communism, fascism. Emphasis on everyday life, consumption, leisure, technology, and Americanization. Prereq: So st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 476 Medieval Law and Society Credits: 3
The course is intended to introduce students to the central historical developments of law and legal institutions in the European middle ages (400-1500). Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 478 Comparative History of Childhood and Adolescence Credits: 3
Growth of modern childhood and adolescent sub-cultures, class differences, literary and pictorial representations, legal and demographic developments, and the growth of educational theories and institutions. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 490 American Indian History Credits: 3 - 4
Prereq: Jr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 500 Reading Seminar in History Credits: 3
Advanced exploration of selected topics, featuring intensive reading, writing, and small-group discussion. Topics vary. Prereq: Jr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HISTORY 502 Law and Colonialism Credits: 3
Historical introduction to the role of law in the context of empire, with special emphasis on 19th-20th C British imperialism; explores themes of class, race and gender through fields of law including criminal, property, family, contract and labor law. Prereq: Previous law-related course
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HISTORY 503 Irish and Scottish Migrations Credits: 3
An examination of migrations into, out of, and between Ireland and Scotland from Roman times to the present. Particular attention paid to migrant and ethnic experiences in the United States, Canada, England, Australia, New Zealand, as well as other destinations.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 504 Society and Health Care in American History Credits: 3
Lecture-seminar. Health care in America since the colonial period; emphasis on social developments. Prereq: Jr st & cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 505 History at Work: Professional Skills of the Major Credits: 1 - 2
This seminar is intended to help history majors understand how their History degree applies to the world of work. Students will explore how their history skills relate to the needs of professional employers. Students will be guided in the process of finding and obtaining professional internships. Students will polish written and oral communication skills in forms appropriate for professional situations. Students will also learn from the experiences of guest speakers from a variety of fields. Prereq: Students must have declared the history major
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 506 History at Work: History Internship Seminar Credits: 3
This seminar is intended to help History majors understand how their History degree applies to the world of work. Intended to supplement students' internship experiences, class hours will be dedicated to discussing issues that arise in students' internships, polishing written and oral communication skills in forms appropriate for professional situations, and exploring how students' historical skills apply to the workplace. Students will also learn from the experiences of guest speakers from a variety of fields. Prereq: Students must have declared this history major. Students must be participating in an internship at the beginning of the term for which they enroll. Students who are not able
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 507 Health, Disease and Healing I Credits: 3 - 4
Medicine in Europe from antiquity to the 18th century, investigating changes in medical ideas, institutions, practices, and organization. Prereq: Jr st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 508 Health, Disease and Healing II Credits: 3 - 4
Medicine in Europe from the 18th century to mid-20th century, investigating changes in disease and demography, state interest in health care, the medical professions, and both scientific and alternative medical ideas. Prereq: Jr st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 510 Legal Pluralism Credits: 3
Historical and anthropological perspectives on non-state "law," or systems of rules generated by normative orders that lay beyond the state; case studies include the mafia, Tokyo tuna traders' court, orthodox Jewish diamond merchants, California gold miners' courts, Inuit song dueling. Prereq: Previous law-related course
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

HISTORY 512 Ideas and Conflict in Europe, 1600-1815 Credits: 3
European intellectual history from the Wars of Religion to the French Revolution. Central themes include responses to crises of political and intellectual authority deriving from religious conflict, international and civil warfare, and new developments in science and philosophy. Particular attention is devoted to Enlightenment thought and its critics. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 514 European Cultural History Since 1870 Credits: 3 - 4
The fin de siecle and the main cultural trends of the twentieth century. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
HISTORY 515 Holocaust: History, Memory and Education Credits: 3
This course explores the ways in which Holocaust history, memory and education are mutually entangled, politically charged and morally complex. Using primarily American sites of memory, students will critically analyze a variety of representations of the Shoah—in literature, films, memoirs, monuments, museums and classrooms. Prereq: Jr st or cons inst

HISTORY 517 Religions of the Ancient Mediterranean Credits: 3
Ancient religions in their political, social and cultural contexts; topics include ritual, literary and artistic representations, religious persecutions, and/or modern approaches to the study of ancient religions. Chronological and geographical focus will vary between Greece, Rome, Judaea and Egypt. Prereq: Sophomore Standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 518 Anti-Semitism in European Culture, 1700-1945 Credits: 3
A critical review of major theories of anti-Semitism and a history of modern anti-Semitism. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 519 Sexuality, Modernity and Social Change Credits: 3
A history of sexuality approach to a period of major social, economic, and political change in US history, 1880-1930; medical, legal, and popular discourses shaping urbanization, reform, nationalism and colonialism. Prereq: Jr st & cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 525 The World and the West from 1492 Credits: 3 - 4
How and why of major recurring types of relations between Westerners and other peoples of the world during five centuries of intensifying contact. Patterns considered: trading post empires (Eastern spices, Northern furs), slave plantation colonies, true empires (minute Western ruling elites), creole empires (Latin America, South Africa), settlement colonies, and informal empire (neocolonialism). Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 529 Intellectual and Religious History of European Jewry, 1648-1939 Credits: 4
Main movements and trends of thought, religion, and culture as European Jewry gained emancipation and adjusted to mass society. Prereq: Hist 119 or 120 or 512 or 513; or Hist/Jewish 220; or Hebr St/Jewish 471 or 472
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 533 Multi-Racial Societies in Latin America Credits: 3 - 4
Genesis, evolution, and contradictions of racially heterogeneous societies, from European conquest to the present. Social history of Indians, Blacks, and Asians; relationships between racial, sexual, and class oppressions. Regional emphasis may vary. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 540 Balkans and Middle East, 1700-1918: The Rise of National States Credits: 3 - 4
Survey of political, economic and cultural organizations and their transformation under the market economy and relations with England, France and Russia. Prereq: So st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 543 Doctors and Delusions: Madness and Medicine in the Modern Era Credits: 3
Medical approaches to mental illness from 1750 to the present. Emphasis on how tension between biomedical and socio-environmental theories about psychopathology have marked modern psychiatry. Focus on Europe and the United States with global and comparative dimensions. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 547 Religion, Colonialism & Modernity in Southeast Asia Credits: 3
Examines changes in Southeast Asian religions (Buddhism, Confucianism, Islam) and experiences of modernity during the colonial period. Focus on religious and literary expressions from Thailand, Cambodia, Vietnam and Indonesia. Prereq:
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
HISTORY 550 Advanced Interdisciplinary Studies in Medieval Civilization Credits: 3
An integrated treatment of a specific theme, to be announced by a group of specialists in different fields. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 555 History of Brazil Credits: 3 - 4
The evolution of Brazil's society, economy, and political institutions since the arrival of the Portuguese court in 1808. Attention to the forces that have supported or opposed modernization. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 560 History of Mass Communication Credits: 4
Evolution of the mass media in the United States in the context of political, social, and economic change. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 561 Greek and Roman Medicine and Pharmacy Credits: 3
Greek and Roman medicine and drug lore from the Pre-Socratics to Oribasius (c. 600 B.C. - A.D. 350), including the backgrounds of ancient Egyptian and Mesopotamian medicine. Prereq: Jr or Sr st, or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

HISTORY 562 Byzantine Medicine and Pharmacy Credits: 3
Byzantine and Islamic medicine and drug lore from Oribasius to the beginnings of the Italian Renaissance (c. 350 - c. 1400 A.D.). Prereq: Jr or Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 564 Disease, Medicine and Public Health in the History of Latin America and the Caribbean Credits: 3
This course examines the history of illness and medical practice in Latin America and the Caribbean from the colonial era until the present. Using an interdisciplinary set of sources, students will explore the different meanings of disease, body normativity, medical practice, and ideas about public health across different historical circumstances in the region. Prereq: Junior standing or above. Include Graduate and Professional level
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 569 History of American Librarianship Credits: 3
Development of American librarianship from Colonial times to the present, with special reference to the relationship of library institutions to their contemporary social, economic, cultural and political environments. Prereq: Jr st; or Grad st in SLIS
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 577 Contemporary Scandinavia: Politics and History Credits: 3 - 4
Social, economic, and ideological changes, institutions, and movements and their relationships with the political processes and structures in the Nordic states. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 600 Advanced Seminar in History Credits: 3
Development and application of advanced research skills to a specific historical topic. Intensive writing and small group discussion results in a project demonstrating original or creative analysis of primary and secondary sources. Prereq: Junior or Senior standing & consent of instructor
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 601 Historical Publishing Practicum Credits: 3
Hands-on instruction and experience in historical publishing. Discussion of the nature of historical research and writing. Prereq: Approval of the instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
HISTORY 607 The American Impact Abroad: The Historical Dimension Credits: 3
Repeatable (as topic changes) with cons inst. Analysis of diplomatic, economic, cultural, and social interaction of Americans with foreign peoples and nations. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HISTORY 622 History of Radical and Experimental Education in the US and UK Credits: 3
Examines the comparative history of radical and experimental education in the United States and United Kingdom since 1800. It focuses on the social, cultural, and intellectual history of diverse educational experiments, including experiments related to socialism, abolitionism, anarchism, and religious fundamentalism. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 628 History of the Civil Rights Movement in the United States Credits: 3
Civil rights history from 1930-1970. Legal, historical and economic origins of the civil rights movement. Study of the movement's impact on United States culture, politics, and international relations. Prereq: Jr or Sr st or cons inst
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 650 History of Books and Print Culture in Europe and North America Credits: 3
History of books and print culture in the West from ancient times to the present. Focus on the influence of reading and writing on social, cultural, and intellectual life. Methodologies, theories, and sources for study of book and print culture history. Prereq: Junior standing; or Graduate student in SLIS
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HISTORY 665 History of the Federal Role in American Education Credits: 3
This course examines the history of federal aid to education, emphasizing the post-World War II period. It addresses such topics as desegregation; bilingual, special, and compensatory education; policy implementation and evaluation; and the connections between executive, legislative, and judicial actions. Prereq: Jr st
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HISTORY 670 Capitalism, Socialism, and Democracy in America Since 1890 Credits: 3 - 4
Political institutional arrangements which have emerged since 1890 and how they have influenced social and economic policies implemented since the Second World War. Why the working class has been politically weak in America; policy consequences of this weakness. Prereq: Junior standing and any one of these: Intro Soc course (Soc 140, 181, 210, or 211), Soc 125, Hist 102, or Hist 109. Soc 475 recommended
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 680 Honors Thesis Colloquium Credits: 2
Colloquium for honors thesis writers. Prereq: Honors candidate & cons inst. Stds must register concurrently for History 681 or 682
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 681 Senior Honors Thesis Credits: 1 - 3
Prereq: Honors candidates & cons inst. Stds must register concurrently in History 680
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 682 Senior Honors Thesis Credits: 1 - 3
Continuation of History 681. Prereq: Honors candidates & cons inst. Stds must register concurrently in History 680
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 690 Thesis Colloquium Credits: 2
Colloquium for thesis writers. Prereq: Major in history & cons inst. Stds must register concurrently for History 691 or 692
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HISTORY 691 Senior Thesis Credits: 1 - 3
Research and writing on an original topic. Prereq: Major in history & cons inst. Stds pursuing distinction must register concurrently in Hist 690
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HISTORY 692 Senior Thesis Credits: 1 - 3
Continuation of History 691. Prereq: Major in history & cons inst. Stdts pursuing distinction must register concurrently in Hist 690
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HISTORY 698 Directed Study Credits: 1 - 4
Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst & previous or conc exposure to the subject
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HISTORY 699 Directed Study Credits: 1 - 4
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst & prev or con exposure to the subject
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

HISTORY 700 Proseminar: Traditional & Early Modern Chinese Intellectual History Credits: 3
The major problems of historical interpretations in Chinese intellectual history from the classical period to 1840 on the basis of English translations of primary sources and English-language secondary sources. Topics vary. Lin. Prereq: Cons inst
Typically Offered: Occasionally

HISTORY 701 History in a Global Perspective Credits: 1
Introduction to the ways of thinking characteristic of historical study and to the questions and methods that motivate the research fields in which department faculty work. Required of all graduate students in their first year. Prereq: Grad st
Typically Offered: Occasionally

HISTORY 703 History and Theory Credits: 3
Explorations of the role of theory in historical research and writing. Content varies. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HISTORY 704 Topics in Contemporary History Credits: 3
This seminar studies two or more nations or defined regions through a comparison of a single theme or set of themes in their history. Prereq: Grad st or cons inst
Typically Offered: Occasionally

HISTORY 705 Topics in Global History Credits: 3
This seminar examines the significance of a particular historical phenomenon from the perspective of its importance world-wide. Prereq: Grad st or cons inst
Typically Offered: Occasionally

HISTORY 706 Topics in Transnational History Credits: 3
This seminar examines the significance of a particular event, phenomenon or question across national borders and in terms of the history of nation-state formation. Prereq: Grad st or cons inst
Typically Offered: Occasionally

HISTORY 707 Proseminar in Early Modern European History, 1500-1789 Credits: 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally

HISTORY 710 Professional Development Seminar Credits: 3
Topics in professional development for historians with an emphasis on building skills that are valuable both inside and outside the academy, such as managing the writing process, teaching college history, or communicating historical research to a broad, nonspecialist audience. Content varies. Prereq: Graduate standing
Typically Offered: Fall, Spring

HISTORY 713 History of Higher Education in Europe and America Credits: 3
Development of colleges, universities, and higher learning in Europe and America. Prereq: Grad st or cons inst
Typically Offered: Occasionally

HISTORY 720 Selected Topics in Medieval History Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally
How powerful is non-military power? What are its vectors and its limits? International relations theorists have defined soft power as "the ability to get what you want through attraction rather than coercion." This graduate seminar will put this notion to the test. We will investigate how elites, interest groups, religious bodies, and nation-states seek to exercise hegemony in the international order through non-violent means. How was "soft power" implemented on the ground in the 20th century- and how did its use transform international relations? To probe these questions, we will focus on a series of case studies in European and U.S. international history. Topics covered include the expansion

Typically Offered: Fall, Spring

HISTORY 725 Seminar in East Asian History Credits: 1 - 3
Major problems of historical interpretation in the early modern and recent histories of China, Japan, and Korea. Topics and periods of emphasis vary each year. Prereq: Consent of instructor

Typically Offered: Occasionally

HISTORY 730 Proseminar in Latin American History Credits: 1 - 3
Historical literature of significant topics in Latin American history. The colonial period, Brazilian history, and Spanish-America in the national period. Offered in alternate semesters. Prereq: Grad st, reading knowledge of Span or Portuguese & cons inst

Typically Offered: Occasionally

HISTORY 734 Introduction to Archives and Records Management Credits: 3
An introduction to the archives profession and basic theory and practice of archives and records administration, including the uses of primary sources in research, appraisal, access, and preservation. Prereq: Graduate standing & consent of instructor

Typically Offered: Occasionally

HISTORY 751 Proseminar in the History of Africa Credits: 1 - 3
Historical literature of Africa through comparative topics which vary each term. Prereq: Grad st & cons inst

Typically Offered: Occasionally

HISTORY 753 Seminar-Comparative World History Credits: 1 - 3
Topics significant for the histories of Latin America, Africa, Islamic core, South Asia and Southeast Asia. A single topic chosen each semester for a series of comparative essays by seminar members. Prereq: Grad st

Typically Offered: Occasionally

HISTORY 755 Proseminar in Southeast Asian History Credits: 1 - 3
Introductory seminar in modern Southeast Asian history; work mostly in English-language sources. Prereq: Grad st & cons inst

Typically Offered: Occasionally

HISTORY 764 Dimensions of Material Culture Credits: 4
This course introduces students to the interdisciplinary field of material culture studies. It is intended for students interested in any professional endeavor related to material culture, including careers in museums, galleries, historical societies, historic preservation organizations, and academic institutions. During the semester, students have varied opportunities to engage with and contemplate the material world to which people give meaning and which, in turn, influences their lives. Sessions combine in some way the following: presentations from faculty members and professionals who lecture on a phase of material culture related to his/her own scholarship or other professional work; di

Typically Offered: Occasionally

HISTORY 774 Methods for Historical Research in Non-Literate Societies Credits: 3
Techniques and critical analysis applied to written, oral, archaeological, linguistic and cultural data. Stresses problems of synthesis. Exercises. Prereq: Grad st or cons inst

Typically Offered: Occasionally

HISTORY 795 Quantitative Methods for Historical Research Credits: 3
Types and use of quantitative techniques in historical research; introduction to basic methods, their application; discussion of kinds and sources of measurable historical data. Prereq: Sr & Grad st & cons inst

Typically Offered: Occasionally
HISTORY 800 Research Seminar in History Credits: 3
Research seminar designed for students in all fields of history. Seminar is structured to enable students to complete the research paper requirement for the MA. It will introduce students to the life of a professional historian, to different styles and methods of history, and give them the opportunity to present their findings in a conference-type setting. Prereq: Graduate standing
Typically Offered: Fall, Spring, Summer

HISTORY 801 Seminar-Ancient History Credits: 1 - 3
Special problems in Greek and Roman history studied in alternate years. Prereq: Grad st & reading knowledge of appropriate foreign language
Typically Offered: Occasionally

HISTORY 804 Interdisciplinary Western European Area Studies Seminar Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

HISTORY 805 Seminar-Medieval History Credits: 1 - 3
Topics in intellectual history. Prereq: Grad st, reading knowl of Latin, French and German and cons inst
Typically Offered: Occasionally

HISTORY 808 Mass Communication History Credits: 3
Intensive reading and discussion designed to introduce students to literature of mass communication. Prereq: Graduate or professional standing
Typically Offered: Occasionally

HISTORY 813 Seminar-Byzantine History & Civilization Credits: 1 - 3
Problems in historical, historiographical and cultural research in periods between the age of Diocletian and 1453. Prereq: Grad st & reading knowledge of Greek or Latin; competence in French and German is assumed
Typically Offered: Occasionally

HISTORY 822 Studies in Economic History Credits: 3
Topics vary each year. Prereq: Cons of instr
Typically Offered: Occasionally

HISTORY 829 Research Seminar in Latin American History Credits: 1 - 3
Research on topics in Latin American history. Special attention to methods of source analysis. Prereq: Grad st, reading knowledge of Spanish or Porgutuese, & cons inst
Typically Offered: Occasionally

HISTORY 837 Seminar-History of Modern Britain and Ireland Credits: 1 - 3
Emphasis on social and political movements as well as on economic development. Prereq: Grad st
Typically Offered: Occasionally

HISTORY 845 Seminar-Central European History Credits: 1 - 3
Modern German history and the history of Central Europe. Prereq: Grad st & reading knowledge of German
Typically Offered: Occasionally

HISTORY 849 Seminar-Topics in History of Imperial Russia, 1649-1917 Credits: 1 - 3
Historiography and problems in the domestic, political, social, economic and cultural history of the Russian Empire to 1917 and of Southeast Europe to the present. Prereq: Grad st. Reading knowledge of Russian recommended but not required
Typically Offered: Occasionally

HISTORY 850 Smr-Hist of the Soviet Union & Modern Hist of E Central Europe Credits: 1 - 3
Development of the Soviet Union since 1917 and the political and diplomatic history of the nations lying between Russia and Germany. Prereq: Grad st & reading knowledge of Russian or German or the east European language in which the stdt wishes to work & cons inst
Typically Offered: Occasionally

HISTORY 851 Seminar on Ottoman and Middle East History Credits: 1 - 3
Concepts applicable to the study of social, economic and institutional movements and developments in the area within a broad historical framework. Prereq: Grad st & cons inst
Typically Offered: Occasionally
HISTORY 854 Seminar in Modern Chinese History Credits: 1 - 3
Chinese history in the nineteenth and twentieth centuries, with emphasis on intellectual history and the history of Chinese Communism. Prereq: Intro prosem in mod E Asian hist or equiv, appropriate Chinese lang background, & cons inst
Typically Offered: Occasionally

HISTORY 855 Seminar in Modern Japanese History Credits: 1 - 3
Research seminar in Japanese history since the Meiji Restoration of 1868. Focus varies each year. Required for M.A. and Ph.D. candidates in Japanese history, but open to students with no Japanese language background. Prereq: Reading knowledge of elementary Japanese or cons inst
Typically Offered: Occasionally

HISTORY 857 Seminar-History of India (South Asia) Credits: 1 - 3
Emphasis upon handling of research problems. Focus upon methods, resources, intellectual approaches, and changing interpretations. Prereq: Grad st and cons inst. Appropriate language(s).
Typically Offered: Occasionally

HISTORY 858 Seminar in Problems of Islamic History Credits: 2 - 3
Social and economic history of North Africa and the Middle East in Islamic and modern times. Prereq: Grad st & knowledge of appropriate foreign language
Typically Offered: Occasionally

HISTORY 861 Seminar-The History of Africa Credits: 1 - 3
Research studies in aspects of African history with emphasis on field research techniques and interpretation of non-archival data. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 867 Seminar-European Social & Intellectual History Credits: 1 - 3
Subject matter varies every semester and alternates between the early modern and modern period. Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 868 Seminar in Modern French History Credits: 1 - 3
Social, political, and cultural history of France, 1800 to the present. Prereq: Grad st
Typically Offered: Occasionally

HISTORY 891 Proseminar in Modern European History Credits: 1 - 3
History of Europe since 1500. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 900 Introduction to History for U.S. Historians Credits: 3
A survey of U.S. history by period and field, designed to introduce new graduate students to U.S. history faculty members and each other. Extensive discussion of how to plan a successful career as a historian. Prereq: Open only to entering Grad stdts in U.S. history
Typically Offered: Occasionally

HISTORY 901 Studies in American History Credits: 1 - 3
Reading seminar in American history. Topics and periods of emphasis vary. Prereq: Consent of instructor
Typically Offered: Occasionally

HISTORY 902 Research Seminar in American History Credits: 1 - 3
Research topics and period of emphasis announced in advance by the professor in charge. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 903 History of Education of Multicultural America Credits: 3
Selected topics, issues and themes concerning the history of education of various groups of people of color in the United States, as well as selected issues, topics and themes focusing on immigration and ethnicity. Prereq: Grad st
Typically Offered: Occasionally
HISTORY 906 Proseminar on the History of Education  Credits: 1 - 3
Reading in European or American educational history.  Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 907 Seminar-History of Education  Credits: 1 - 3
Studies in European and American educational history.  Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 910 History of Colonial North America  Credits: 3
The history of North America from the fifteenth through eighteenth centuries, with the primary focus on Anglo-America.  Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 919 Seminar-History of Mass Communication  Credits: 3
Seminar in the history of mass communication in which students are expected to produce original research based on primary documents.  Prereq: Cons inst
Typically Offered: Occasionally

HISTORY 925 Seminar-America in the Civil War Era  Credits: 2 - 3
Politics, society, and economics from the sectional crisis through the fall of southern reconstruction.  Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 929 Labor and Working Class History in the United States  Credits: 3
This course is a reading seminar intended to introduce students to key topics, seminal works, and historiographic controversies in U.S. working class and labor history from the post-Civil War period to the present.  Prereq: Graduate or professional standing
Typically Offered: Occasionally

HISTORY 932 Seminar in American Environmental History  Credits: 3
Surveys recent and classic works on American environmental history to introduce students to the methods and historiography of the field.  Prereq: Graduate or professional standing
Typically Offered: Occasionally

HISTORY 936 The History of Women and Gender in the U.S., to 1870  Credits: 3
Surveys key theoretical work and secondary literature on the history of women and gender in the United States to 1870.  Prereq: Graduate or professional standing
Typically Offered: Occasionally

HISTORY 937 The History of Women and Gender in the U.S. since 1870  Credits: 3
Examines major and path breaking scholarship in the field of U.S. women's history, focusing on the era post 1870. Pays particular attention to race, class and sexuality as students learn to conduct a historical, gender analysis. Seminar format.  Prereq: Cons inst
Typically Offered: Occasionally

HISTORY 938 History of Sexuality  Credits: 3
Using sexuality as a category of historical analysis, examines historiographical, methodological, and theoretical contributions to understanding all aspects of the past.  Prereq: Sr st or Grad st, & cons inst
Typically Offered: Occasionally

HISTORY 940 Seminar-American History 1900-1945  Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 941 Indians and Empires  Credits: 3
Examining the centuries of imperial competition in Native America, this seminar explores recent developments in early American Indian history.  Prereq: Cons inst
Typically Offered: Occasionally

HISTORY 942 American Indian History, 1800-present  Credits: 3
A readings course on American Indian resistance, adaptation, and revival during the U.S. National period.  Prereq: Cons inst
Typically Offered: Occasionally
HISTORY 943 Race & Nationalism: Comparative & Theoretical Perspectives Credits: 3
Graduate seminar on historical intersections of race and nationalisms. Explores questions of the origin of race and nationalisms, the position and status of a variety of nationalisms and anti-colonial nationalisms; and the contemporary debates over postmodernism, postindustrialism, postcolonialism, and multiculturalism. Prereq: Cons inst
Typically Offered: Occasionally

HISTORY 945 Seminar-American History 1929 to the Present Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 951 Seminar-Intellectual History of America Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 952 Seminar in Comparative History Credits: 2 - 3
Prereq: Cons inst and masters degree
Typically Offered: Occasionally

HISTORY 958 Seminar-American Military History Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 963 American Religious History to 1860 Credits: 3
The creation of a national religious culture from the earliest settlements to the mid-nineteenth century. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 965 Seminar in the History of the American West Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

HISTORY 974 Seminar in American History for Advanced Placement Teachers Credits: 1 - 2
Graduate-level seminar for high school teachers attending the UW-Madison Summer AP Institute. Reading and discussion designed to deepen teachers' knowledge of historical issues and historiography, and introduce new perspectives into their classes. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 975 Practicum in American History for Advanced Placement Teachers Credits: 1 - 2
Graduate-level practicum for high school teachers attending the UW-Madison Summer AP Institute. How to improve techniques for teaching college-level courses in American history, with an emphasis on integrating primary sources into the curriculum. Prereq: Grad st & cons inst
Typically Offered: Occasionally

HISTORY 976 Special Problems in Archives-Manuscripts Administration Credits: 3
A research seminar. Contemporary problems in archives administration, with special types of archival institutions and special classes of archival material. Prereq: LIS 734 or consent of instructor
Typically Offered: Occasionally

HISTORY 977 The Practice of Archives-Manuscripts Administration Credits: 3
Practical training in the collecting and accessioning, arrangement, describing and servicing of archives and manuscript holdings in the Division of Archives and Manuscripts of the State Historical Society under the direct supervision of the chief archivist or a member of the professional staff. Prereq: LIS 734 or consent of instructor
Typically Offered: Occasionally
Embracing the art of teaching as a key skill, and acknowledging that the desire to teach is one of the main motivations for graduate study, this course aims to translate passion for history and humanities education into practical skills for classroom success. We will explore how research on learning and teaching can be leveraged to maximize positive impact on student learning, create meaningful learning experiences for all students, grade effectively, fairly, and efficiently while minimizing time commitments and frustrations. This course should lessen the burden of graduate student teaching by helping students learn how to preemptively avoid problems and enable undergraduate success. We will

**Typically Offered:** Occasionally

**HISTORY 979 Seminar in Urban History** Credits: 3
Causes and consequences of urbanization, stressing social and economic aspects of major population movements, with particular attention to the United States. **Prereq:** Graduate standing & consent of instructor

**Typically Offered:** Occasionally

**HISTORY 982 Interdepartmental Seminar in the Latin-American Area** Credits: 1 - 3
Interdisciplinary inquiry in African society and culture. **Prereq:** Grad st or cons inst

**Typically Offered:** Occasionally

**HISTORY 983 Interdepartmental Seminar-African Studies** Credits: 3
Interdisciplinary inquiry in African society and culture. **Prereq:** Grad st or cons inst

**Typically Offered:** Occasionally

**HISTORY 990 Research and Thesis** Credits: 1 - 9
**Typically Offered:** Occasionally

**HISTORY 999 Independent Work** Credits: 1 - 6
Properly qualified graduate students may, by agreement with the major professor, undertake special out-of-class work, generally upon research problems, during the recesses of the University. This special work available only to graduate students who have the master's degree or equiv. **Prereq:** Grad st & cons inst

**Typically Offered:** Occasionally

**HISTORY OF SCIENCE**

**HIST SCI 125 Green Screen: Environmental Perspectives through Film** Credits: 3
From Teddy Roosevelt's 1909 African safari to the Hollywood blockbuster King Kong, from the world of Walt Disney to The March of the Penguins, cinema has been a powerful force in shaping public and scientific understanding of nature throughout the twentieth and twenty-first century. How can film shed light on changing environmental ideas and beliefs in American thought, politics, and culture? And how can we come to see and appreciate contested issues of race, class, and gender in nature on screen? This course will explore such questions as we come to understand the role of film in helping to define the contours of past, present, and future environmental visions in the United States, and the

**L&S Breadth:** Humanities or Soc Sci  **L&S Level:** Elementary  **L&S Credit:** Counts for LAS credit  **Typically Offered:** Every Other Fall

**HIST SCI 133 Biology and Society, 1950 - Today** Credits: 3
From medical advancements to environmental crises and global food shortages, the life sciences are implicated in some of the most pressing social issues of our time. This course explores events in the history of biology from the mid-twentieth century to today, and examines how developments in this science have shaped and are shaped by society. In the first unit, we investigate the origins of the institutions, technologies, and styles of practice that characterize contemporary biology, such as the use of mice as "model organisms" for understanding human diseases. The second unit examines biological controversies such as the introduction of genetically modified plants into the food supply. Th

**L&S Breadth:** Humanities or Soc Sci  **L&S Level:** Elementary  **L&S Credit:** Counts for LAS credit  **Typically Offered:** Spring

**HIST SCI 180 Freshman Honors Seminar: History of Science, Technology and Medicine** Credits: 3
Introduction to the history of science, technology and medicine through in-depth examination of a specific theme or topic. **Prereq:** Open to Fr only or with cons inst

**L&S Breadth:** Humanities  **L&S Level:** Elementary  **L&S Credit:** Counts for LAS credit  **Typically Offered:** Fall, Spring
HIST SCI 201 The Origins of Scientific Thought Credits: 3
Emergence of scientific method and scientific modes of thought out of ancient philosophical and religious
traditions; the impact of ancient science on medieval Christendom; the origins and development of the
Copernican-Newtonian world view. Prereq: Open to Fr. Not open to stdts who have taken ILS 201 or Hist Sci
323, except by cons inst
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 202 The Making of Modern Science Credits: 3
Major trends and developments in the sciences from the 17th century to the early 20th century. Emphasis on
those with broad cultural and social implications. Prereq: Not open to stdts who have had Hist of Sci 204. Open
to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HIST SCI 203 Science in the Twentieth Century: A Historical Overview Credits: 3
Major themes in the physical, biological and environmental sciences from 1890 to the present, with attention to
conceptual development, interaction of science and society, philosophical issues, and personalities in science.
Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

HIST SCI 206 History of Astronomy and Cosmology Credits: 3
The development of astronomical knowledge and cosmological views from the earliest times to the present,
viewed in their social, philosophical, and technological contexts. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HIST SCI 212 Bodies, Diseases, and Healers: An Introduction to the History of Medicine Credits: 3
A survey of different conceptions of how the body as a site of sickness has been understood from Antiquity to
temporary medicine. Includes consideration of the origins and evolution of public health, the changing social
role of healers, and the emergence of the modern "standardized" body in health and illness. Prereq: Open to
Freshmen. For honors credit consent required in Hist Sci/Hist Med 284 or consent of instructor
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 218 History of Twentieth Century American Medicine Credits: 3
This undergraduate lecture course introduces students to the development of the modern American medical care
system. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HIST SCI 222 Technology and Social Change in History Credits: 3
Topics in the history of technology of interest to students in engineering and physical sciences. Themes include
the social basis of technical change, the impact of technology on everyday life, and ethical issues in technology in
the last two centuries. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 230 Agriculture and Social Change in Western History Credits: 3
Agricultural practices and social history from prehistoric times to the present. Topics include origins of agriculture,
feudalism, agriculture in the Industrial Revolution, farming in America, and the consequences of the Green
Revolution. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HIST SCI 250 Special Topics in History of Science (Introductory) Credits: 3
Special topics in the history of science, medicine, and technology, aimed for students at the introductory (fresh-
soph) level. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring,
Summer

HIST SCI 275 Science, Medicine, and Race: A History Credits: 3
Surveys the medical and scientific constructions of categories of race, placing the development of racial theories
in a broad social and political context. The course will pay particular attention to the importance of racial science
in slavery and colonialism. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall
HIST SCI 280 Honors Seminar: Studies in Science, Technology, Medicine  Credits: 3
Intensive exploration of issues in the history of science. Emphasis on developing critical thinking about science through formal and informal writing. Prereq: Communications Requirement Part A must be satisfied. Open to non-honors stdts with cons inst. Open to Fr
General Education:  COM B  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 284 Physician in History (Honors)  Credits: 1
Honors course for students enrolled concurrently for honors in History of Science 212. Open to non-honors students with consent of instructor. Prereq: Con reg for honors in Hist Sci/ Hist Med 212 or cons inst. Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 286 Honors Seminar: Studies in Science, Technology, Medicine  Credits: 3
Intensive exploration of issues in the history of science. Emphasis on developing critical thinking about science through discussion of readings and written exercises. Open to non-honors students with cons inst. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 305 Development of Economic Thought  Credits: 3 - 4
Development of economic thought from the middle ages to the present; emphasis on major schools of thought including Classical, Marixian, Neo-Classical, and Keynesian schools. Prereq: Any two intro econ courses or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HIST SCI 322 Ancient and Medieval Science  Credits: 3
Scientific ideas and institutions from the beginnings of Greek philosophy to the Renaissance. Prereq: Jr st or cons inst. Grads must enroll concurrently in Hist Sci 622
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 323 The Scientific Revolution: From Copernicus to Newton  Credits: 3
An introduction to the formative period of modern science, including major ideas and events in the physical and life sciences from Copernicus to Newton. Prereq: Jr st or cons inst. Grads enroll concurrently in Hist Sci 623
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 324 Science in the Enlightenment  Credits: 3
Development and triumph of Newton’s gravitational law; the conceptual revolution in chemistry; the move from religious to natural cosmologies. 4th credit requires extra work. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HIST SCI 325 History of Physics: The Classical Period  Credits: 3
Major themes in the development of physics in the eighteenth and nineteenth centuries. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 326 History of Physics: The Modern Period  Credits: 3
Major themes in the development of physics in the twentieth century. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 331 Science, Medicine and Religion  Credits: 3 - 4
Science, medicine and religion from antiquity to the present, with emphasis on Western civilization. Prereq: Jr st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

HIST SCI 333 History of Modern Biology  Credits: 3
Survey of major developments in biology and related sciences ca. 1700-1950. Topics include morphology and embryology; evolutionary theory, ecology, and genetics; physiology and recent experimental biology. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
HIST SCI 337 History of Technology Credits: 3
A survey of Western technology within its social and cultural context during the past 1000 years. Topics include technology in European expansion, the industrial revolution, and the rise of the United States as a technological superpower. Prereq: Jr st or cons inst. Grads must enroll concurrently in Hist Sci 637
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HIST SCI 339 Technology and Its Critics Since World War II Credits: 3
Examines expert and popular criticism of technology from World War II to the present. Topics include atomic fallout, consumer society, Ralph Nader's critique of auto safety, environmentalism, the movement against nuclear power, critics in the counterculture, and appropriate technology. Prereq: Jr st or cons inst. Grad stdts must enroll concurrently in Hist Sci 639
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HIST SCI 343 The Darwinian Revolution Credits: 3
Scientific, social, religious and related dimensions of the evolution hypothesis from predarwinian speculation and Darwin's own work to later support, criticism and continuing investigation. Coverage reaches into the twentieth century. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HIST SCI 350 Special Topics in the History of Science Credits: 2 - 3
Prereq: So honors or Jr st
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HIST SCI 353 History of Ecology Credits: 3
The development of the science of ecology and related scientific issues and social attitudes, with a primary emphasis on developments from the late nineteenth century to the present. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HIST SCI 356 Islam, Science & Technology, and the Environment Credits: 3 - 4
Survey of Muslim religious understandings of science, technology, nature and environment. Lectures and readings present a global perspective through case studies, covering sources such as the Qur'an, theology and law, and traditions of esoteric piety (mysticism), and historical and contemporary issues like medical ethics, virtual realities, and environmental change, challenge and crisis. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

HIST SCI 394 Science in America Credits: 3
From the colonial period to the present; emphasis on the development of scientific institutions and the influence of science on American life. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

HIST SCI 401 History of Pharmacy Credits: 2
Pharmaceutical field, from antiquity to modern medical care; professional; structuring in principal countries of the West. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HIST SCI 431 Childbirth in the United States Credits: 3
American women's childbirth experiences from the colonial period to the present. Childbirth as a cultural as well as a biological event. Basic physiological information for understanding and evaluating changing approaches to pregnancy and childbirth. Prereq: Women St 103 or 430 or equiv; or cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

HIST SCI 473 History of Mathematics Credits: 3
An historical survey of the main lines of mathematical development. Prereq: Cons inst
L&S Breadth: Humanities or Nat Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

HIST SCI 504 Society and Health Care in American History Credits: 3
Lecture-seminar. Health care in America since the colonial period; emphasis on social developments. Prereq: Jr st & cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits:</th>
<th>Description</th>
<th>Prereq:</th>
<th>L&amp;S Breadth:</th>
<th>L&amp;S Level:</th>
<th>L&amp;S Credit:</th>
<th>Typically Offered:</th>
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</thead>
<tbody>
<tr>
<td>HIST SCI 507</td>
<td>Health, Disease and Healing I</td>
<td>3 - 4</td>
<td>Medicine in Europe from antiquity to the 18th century, investigating changes in medical ideas, institutions, practices, and organization. Prereq: Jr st.</td>
<td>L&amp;S Breadth: Humanities, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Fall, Spring</td>
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<tr>
<td>HIST SCI 508</td>
<td>Health, Disease and Healing II</td>
<td>3 - 4</td>
<td>Medicine in Europe from the 18th century to mid-20th century, investigating changes in disease and demography, state interest in health care, the medical professions, and both scientific and alternative medical ideas. Prereq: Jr st.</td>
<td>L&amp;S Breadth: Humanities, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Fall, Spring</td>
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<td>HIST SCI 509</td>
<td>The Development of Public Health in America</td>
<td>3</td>
<td>Seminar. Health problems in the U.S. from the colonial period to the twentieth century; efforts made toward their solutions. Prereq: Jr st &amp; cons inst.</td>
<td>L&amp;S Breadth: Biological Science, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Fall, Spring</td>
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<td>HIST SCI 512</td>
<td>Galileo Galilei: Life, Writings, and Interpretations</td>
<td>3 - 4</td>
<td>Galileo's life and writings in political and cultural context. Special attention to the theory of motion, telescopic discoveries, condemnation by the Inquisition (including primary documents), and to contrasting interpretations of his work, motivations, and contributions. Prereq: So honors or Jr st.</td>
<td>L&amp;S Level: Advanced, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Occasionally</td>
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<td>HIST SCI 513</td>
<td>Environment and Health in Global Perspective</td>
<td>3</td>
<td>Explores the historical relationships between environmental change and human health from the 17th through the 20th century. Topics include colonialism and disease, medical geography, urban pollution and reform, workplace hazards, environmental risk, and the anti-toxics and environmental justice movements. Prereq: Jr st.</td>
<td>L&amp;S Breadth: Humanities or Soc Sci, L&amp;S Level: Advanced, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Spring</td>
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<td>HIST SCI 514</td>
<td>History of Geologic Thought</td>
<td>3</td>
<td>Major concepts from earliest to modern times. Prereq: Sr st, Geosci 100 or 101 &amp; 204 or cons inst.</td>
<td>L&amp;S Breadth: Humanities, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Occasionally</td>
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<td>HIST SCI 523</td>
<td>Race, American Medicine and Public Health</td>
<td>3</td>
<td>The course will provide historical perspectives on current dilemmas facing black patients and health care professionals. Prereq: Jr or Sr st.</td>
<td>Ethnic Studies: Yes, L&amp;S Breadth: Social Science, L&amp;S Level: Intermediate/Advanced, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Occasionally</td>
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<td>HIST SCI 524</td>
<td>The Medical History of Sex and Sexuality</td>
<td>3</td>
<td>Examines the changing place of medicine and scientific authority in public and private sexual lives. Highlights the role of medicine in defining appropriate sexual behavior, understanding the cause of sexual deviance, and treating sexual problems and diseases. Prereq: Prev history (incl med hist &amp; hist sci) crse preferred.</td>
<td>L&amp;S Breadth: Humanities, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Spring</td>
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<tr>
<td>HIST SCI 531</td>
<td>Women and Health in American History</td>
<td>3</td>
<td>Women as patients and as health professionals in America from the colonial period to the present. Prereq: Jr st &amp; cons inst.</td>
<td>L&amp;S Breadth: Biological Science, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Fall, Spring</td>
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<tr>
<td>HIST SCI 532</td>
<td>The History of the (American) Body</td>
<td>3</td>
<td>This course demonstrates that human bodies have social and cultural histories. It will highlight the social values placed on different bodies, the changing social expectations bodies create, and the role of science and medicine in creating the cultural meanings of bodies. Prereq: Women St 103 or other women's studies crse required; prev hist (incl med hist &amp; hist sci) crse preferred.</td>
<td>L&amp;S Breadth: Humanities, L&amp;S Level: Advanced, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Fall</td>
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<tr>
<td>HIST SCI 543</td>
<td>Doctors and Delusions: Madness and Medicine in the Modern Era</td>
<td>3</td>
<td>Medical approaches to mental illness from 1750 to the present. Emphasis on how tension between biomedical and socio-environmental theories about psychopathology have marked modern psychiatry. Focus on Europe and the United States with global and comparative dimensions. Prereq: Jr st or cons inst.</td>
<td>L&amp;S Breadth: Humanities or Soc Sci, L&amp;S Level: Intermediate, L&amp;S Credit: Counts for LAS credit</td>
<td>Typically Offered: Fall</td>
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HIST SCI 550 Medical Technologies in Historical Perspective Credits: 3
Focusing upon the 18th- to 21st-century U.S. and building upon earlier European history, the course explores the ways that a range of technologies - e.g. stethoscopes, spirometers, x-rays, hospital design, pharmaceuticals, gene and cell therapies, telemedicine, etc. - have shaped medicine and invited social critique. Prereq: Junior/Senior standing or consent of instructor
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

HIST SCI 553 International Health and Global Society Credits: 3
Major problems in international health from 1750 to the present. Focus on disease epidemiology and ecology; political economy of health; migration; quarantine; race, ethnicity, and health care; international health research; cross-cultural healing; mental and maternal health; growth of international health organizations. Prereq: Jr or Sr st, or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

HIST SCI 554 A History of Western Disability Credits: 3
Offers a wide range of arguments about the nature of disability, from pre-history to the 21st century. Explores the history of disability in Western thought and practice and the formulation of personhood, citizenship, and social well being. Prereq: None
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

HIST SCI 555 Undergraduate Seminar in History of Science Credits: 3
Introduction to research in history of science. Prereq: Hist of sci majors only-initial preference to Srs
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

HIST SCI 561 Greek and Roman Medicine and Pharmacy Credits: 3
Greek and Roman medicine and drug lore from the Pre-Socratics to Oribasius (c. 600 B.C. - A.D. 350), including the backgrounds of ancient Egyptian and Mesopotamian medicine. Prereq: Jr or Sr st, or cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

HIST SCI 562 Byzantine Medicine and Pharmacy Credits: 3
Byzantine and Islamic medicine and drug lore from Oribasius to the beginnings of the Italian Renaissance (c. 350 - c. 1400 A.D.). Prereq: Jr or Sr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

HIST SCI 564 Disease, Medicine and Public Health in the History of Latin America and the Caribbean Credits: 3
This course examines the history of illness and medical practice in Latin America and the Caribbean from the colonial era until the present. Using an interdisciplinary set of sources, students will explore the different meanings of disease, body normativity, medical practice, and ideas about public health across different historical circumstances in the region. Prereq: Junior standing or above. Include Graduate and Professional level
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

HIST SCI 615 The History of Evolutionary Thought Credits: 3
Biological and geological foundations, preliminary speculations, the Darwinian synthesis, and its substantiation. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HIST SCI 622 Studies in Ancient and Medieval Science Credits: 1
Advanced readings in primary and secondary literature of the history of ancient and medieval science, with emphasis on historiographic issues. Prereq: Grad st; con reg in Hist Sci 322 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HIST SCI 623 Studies in Early Modern Science Credits: 1
Advanced readings in primary and secondary literature of the history of the 16th-17th century European science, with emphasis on current historiographic issues. Prereq: Grad st; con reg in Hist Sci 323 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

HIST SCI 637 Studies in History of Technology Credits: 1
Advanced readings in primary and secondary literature of the history of technology, with emphasis on historiographic issues. Prereq: Grad st; con reg in Hist Sci 337 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
HIST SCI 639 Studies in Technology & Its Critics Since World War II Credits: 1
Graduate readings and discussion on expert and popular criticism of technology from World War II to the present. 
Prereq: Grad st; con reg in Hist Sci 339
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

HIST SCI 668 Topics in History of Medicine Credits: 3
Upper-level special topics course in the history of medicine. 
Prereq: Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 681 Senior Honors Thesis Credits: 3
Honors thesis for history of science majors. 
Prereq: Open to honors majors in hist sci, cons inst required
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 682 Senior Honors Thesis Credits: 3
Honors thesis for history of science majors. Continuation of 681. 
Prereq: Open to honors majors in hist sci, cons inst required
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 691 Senior Thesis Credits: 3
Senior thesis for history of science majors. Research and writing on an original topic. 
Prereq: Open to hist sci majors, cons inst required
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 692 Senior Thesis Credits: 3
Senior thesis for history of science majors. Continuation of 691. 
Prereq: Open to hist sci majors, cons inst required
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 698 Directed Study Credits: 1 - 3
Cr/N. 
Prereq: Jr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 699 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

HIST SCI 713 Studies in Environment and Health Credits: 1
Advanced readings in primary and secondary literature of environment and health, with emphasis on current historiographic issues. 
Prereq: Grad st, or con reg in Hist Med 513 or cons inst
Typically Offered: Occasionally

HIST SCI 720 Proseminar: Historiography and Methods Credits: 3
Philosophies, methods, and sources in the history of science, and their relations to the current state of scholarship. 
Prereq: Grad st
Typically Offered: Occasionally

HIST SCI 743 Doctors and Delusions: Madness and Medicine in the Modern Era Credits: 1
Advanced readings in primary and secondary literature of the history of psychiatry, with emphasis on historiographical issues. 
Prereq: Grad st & con reg in Med Hist 543, or cons inst
Typically Offered: Occasionally

HIST SCI 903 Seminar: Medieval, Renaissance, and 17th Century Science Credits: 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally

HIST SCI 907 Seminar: History of Technology Credits: 3
Research and readings on a topic of current interest in history of technology. 
Prereq: Grad st
Typically Offered: Occasionally

HIST SCI 909 History of Biology and Medicine Credits: 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally
HIST SCI 911 Seminar-Eighteenth Century Science Credits: 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally

HIST SCI 915 Seminar: Science in America Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

HIST SCI 919 Graduate Studies in Medical History Credits: 3
Three seminars analyzing the scientific and social aspects of the development of modern medicine in Europe and America; one seminar exclusively on public health. Prereq: Grad st and cons inst
Typically Offered: Occasionally

HIST SCI 921 Seminar-Special Topics Credits: 3
Offered occasionally. Topics not treated in regular courses. Prereq: Grad st or cons inst
Typically Offered: Occasionally

HIST SCI 925 Seminar: Research and Thesis Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

HIST SCI 950 History of Science Colloquium Credits: 0 - 1
Intended for graduate majors in History of Science and required of graduate majors in History of Science during their first two semesters. Prereq: History of Science major; Grad st
L&S Level: Advanced Typically Offered: Occasionally

INTEGRATED LIBERAL STUDIES

ILS 126 Principles of Environmental Science Credits: 4
This course relates principles of environmental science to our daily activities, with an eye to sustainability, conservation, and systems thinking. It introduces science as a process of inquiry and discovery rather than just a pre-established set of facts. Topics relate to energy, water, and land use, and include food, electric power, materials, buildings, transportation, and waste. Prereq: Open to Freshmen
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

ILS 138 CRC First-Year Seminar: Foundations of a Liberal Arts Education Credits: 1
Students explore stereotypes of, and update their conceptions of a "liberal arts education" and its value in today's world. Students attend various events around campus and within CRC, and discover the resources of the University while developing community with others. Prereq: Must be a resident of Chadbourne Residential College. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

ILS 150 Ways of Knowing Credits: 1
Freshmen are exposed to a variety of scholarly topics from outstanding faculty campus-wide as well as small group seminars led by faculty. Students are encouraged to explore the possibility of a research experience in their degree program. Prereq: Open to Fr only
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ILS 153 Ways of Knowing in the Sciences Credits: 4
Introduction to science as a process of inquiry and discovery, not as a pre-established set of facts. Emphasizes hands-on learning in both laboratory and lecture environments with small group work and interactive discussion. Prereq: Open to Fr
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ILS 157 Bradley Roundtable Seminar Credits: 1
The Bradley roundtable seminar addresses various topics of interest to the residents of the Bradley Learning Community. Prereq: Open to Fr. Students must be residents of the Bradley Learning Community
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ILS 170 Creativity and the Civic-Minded Culture Credits: 3
The course is designed to encourage and cultivate a sense of civic responsibility, social awareness and develop action-steps for using the arts and other creative enterprises as tools for social change. Students will explore the social, cultural and political parallels between the performing arts and creative design disciplines using real life case studies and dramatic narratives to better understand the interplay of the creative process and civic engagement. In addition, students are expected to nurture and refine capacities that will enable them to address and better understand the origin of societal concerns regarding race, class and difference. It is hoped that students will also deve
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ILS 198 Directed Study Credits: 1 - 3
Prereq: Graded on a Cr/N basis; requires cons inst and con reg in two ILS courses
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ILS 199 Directed Study Credits: 1 - 3
Prereq: Graded on a lettered basis; requires cons inst & con reg in 2 ILS courses. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ILS 200 Critical Thinking and Expression Credits: 3
The three modes of argument and expression: verbal, visual, numerical. Critical thinking about how these modes are structured and used. Practice in, and interpretation of, the three modes. Prereq: Satisfied Communications A requirement
General Education: COM B  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ILS 201 Western Culture: Science, Technology, Philosophy I Credits: 3
Western science and technology in the making. Major developments viewed in philosophical and social context, from antiquity to 17th century. Cannot be taken by students who have taken History of Science 201 or 403. Prereq: Open to Fr
L&S Breadth: Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ILS 202 Western Culture: Science, Technology, Philosophy II Credits: 3
Western science and technology in the making. Major developments viewed in philosophical and social context from the 17th to early twentieth century. Cannot be taken by students who have taken History of Science 202 or 404. Prereq: Open to Fr
L&S Breadth: Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ILS 203 Western Culture: Literature and the Arts I Credits: 3
The development of literature and the arts in the ancient and medieval world: Akhnaton's Egypt, Homer's Troy, Euripides' Athens, Virgil's Rome, Dante's Florence. Literature and art in the context of society and ideas. Prereq: Open to All Undergrads
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ILS 204 Western Culture: Literature and the Arts II Credits: 3 - 4
The development of literature and the arts from the Renaissance to the modern period: such figures as Shakespeare and Michelangelo through T.S. Eliot and Picasso. Literature and art in the context of society and ideas. Sections of this course offered for 3 credits do not count for Comm B; only sections offered for 4 credits may carry the Comm B section-level designation. Students are strongly encouraged to complete Comm A before enrolling in a Comm B section. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ILS 205 Western Culture: Political, Economic, and Social Thought I Credits: 3
The development of Western political, economic and social thought, from its origins in classic Greece and the Judaeo-Christian tradition, through Rome and the Medieval period, to the Renaissance and Reformation. Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
ILS 206 Western Culture: Political, Economic, and Social Thought II Credits: 3
The development of Western political, economic and social thought from the Reformation to the present day: the origins, logic and evolution of liberalism, Marxism, and organic conservatism as the principal systems of thought of the modern age. Prereq: Open to All Undergrads
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ILS 208 History of Western Culture II Credits: 3
The historical development of Western civilization and culture since the Renaissance. Emphasis on major institutions and the social context of ideas. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit
Typically Offered: Spring

ILS 209 Introduction to Global Cultures Credits: 3
Introduction to the comparative study of world cultures from an interdisciplinary perspective. Cultures selected for consideration may vary from year to year. Consideration of such topics as literary and artistic representation, the life cycle, the idea of justice, religious beliefs. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit
Typically Offered: Fall

ILS 234 Genres of Western Religious Writing Credits: 3
Writing intensive course based on the conventions in which Western writers have expressed religious ideas. Readings from Jewish, Christian, and other spiritualities. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr
General Education: COM B L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Spring

ILS 251 Contemporary Physical Sciences Credits: 3
Twentieth century physical theory and its application in science and technology. Relativity and the quantum theory; modern cosmology and astrophysics; the quantum basis of chemistry and molecular biology; nuclear physics and nuclear power technology; lasers. Philosophical problems connected with these theories are addressed. Prereq: ILS 202 or Hist Sci 201-202 or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Spring

ILS 252 Contemporary Life Sciences Credits: 3
A systems oriented approach to the interrelation of plants and humans in their evolution and cultural development; a historical geographic perspective concluding with a consideration of ecosystems in twentieth century America. Prereq: Open to All Undergrads
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

ILS 253 Literature and Society Credits: 3
Representative episodes in the interaction of literature and society, organized either around a set of social institutions and their literary connections or around a set of literary forms and their social connections. Prereq: So st or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

ILS 254 Literature and Science Credits: 3
Examination of the interactions between science, technology, and literature. Prereq: Open to Fr. ILS crse
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

ILS 271 Pre-Copernican Astronomy and Cosmology in Crosscultural Perspective Credits: 3
Astronomy and cosmology, from the cultures of ancient Egypt, Mesopotamia, Greece, India, China and Mesoamerica, through the Arabic and Latin Middle Ages, to Copernicus. Attention to cross-cultural transmission and appropriation of techniques and data; comparisons and contrasts among methods, purposes, and organizing metaphors. Prereq: ILS 201 or 202 or 251 or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

ILS 275 Special Topics in Integrated Liberal Studies Credits: 3
Interdisciplinary themes and issues from the ILS program. Topics are footnoted in timetable. Prereq: Sophomore standing
L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

ILS 298 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Occasionally
ILS 299 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a lettered basis; requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ILS 338 Peer Mentoring for First-Year Liberal Education Seminar Credits: 2
A mentoring and supervision class for CRC Peer Mentors who are assisting instructors of the CRC First-Year Seminar which focuses on conceptions and stereotypes of a "liberal arts" education and its value in today's world.
Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ILS 357 Peer Mentor Seminar Credits: 2
This course is designed to help improve leadership and facilitation skills for the co-facilitators of the Bradley roundtable. Prereq: Students must be sophs & former residents of the Bradley Learning Community
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ILS 371 Interdisciplinary Studies in the Arts and Humanities Credits: 3
Selected interdisciplinary topics in literature and art with emphasis on social, historical and political contexts.
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ILS 372 Interdisciplinary Studies in the Social Sciences Credits: 3
Interdisciplinary analysis of selected topics in the social sciences.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ILS 400 Capstone Integration Seminar Credits: 3
Required capstone seminar for juniors and seniors seeking ILS certification. Prereq: Jr or Sr st and seeking ILS certificate
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ILS 401 Global Cultures Capstone Seminar Credits: 3
Seminar to address the integration of intellectual, cultural, and social issues related to global cultures. Prereq: Sr st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ILS 490 Research in Integrated Liberal Studies Credits: 2 - 3
This course provides opportunities for students to pursue research in integrated liberal studies. Prereq: At least 2 prev crses in integrated liberal studies.
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ILS 681 Undergraduate Honors Thesis Credits: 3
Prereq: Jr or Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ILS 682 Undergraduate Honors Thesis Credits: 3
Continuation of 681. Prereq: Jr or Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ILS 691 Undergraduate Thesis Credits: 3
Prereq: Jr or Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ILS 692 Undergraduate Thesis Credits: 3
Continuation of 691. Prereq: Jr or Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

INTERDIS COURSES (L & S)

INTER-LS 101 First-Year Seminar in the Biological Sciences Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
INTER-LS 102 First-Year Seminar in the Humanities Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 103 First-Year Seminar in Literature Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 104 First-Year Seminar in the Natural Sciences Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Natural Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 106 First-Year Seminar in the Social Sciences Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 107 First-Year Seminar in the Social Sciences and Natural Sciences Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Soc Sci or Nat Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 110 First-Year Seminar in the Humanities and Social Sciences Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 118 First-Year Seminar in the Social Sciences, Ethnic Studies Credits: 3
Interdisciplinary course for first-year students. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 121 Approaches to Critical Thinking and Writing Credits: 3
Prereq: Open to Fr in Summer Collegiate Experience (SCE) only
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

INTER-LS 152 Ways of Knowing: Medicine and Society Credits: 1
Sophomores are exposed to a variety of scholarly topics on subjects dealing with medicine and society by campus-wide faculty. Discussions led by faculty who are primary care practitioners. Students are encouraged to explore the possibility of a research experience in their degree program. Prereq: Open to Sophomores only
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTER-LS 180 First-Year Honors Interdisciplinary Seminar: Diversity Dialogues Credits: 1
This course is a first-year honors topics seminar designed to engage students in interdisciplinary learning and build an honors student community, examining one topic through the three breadth areas of study: natural science, social science, and humanities. Prereq: 1st-yr stdts accepted into the L&S honors prog. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTER-LS 185 Honors Interdisciplinary Reading Course Credits: 2 - 3
This preparation course provides the necessary intensive reading as a companion course to participation in specific study-abroad L&S honors programs. Students who complete both courses will be awarded six honors credits. Prereq: Enrollment in the L&S Honors Progm; consent of an honors progm advisor. Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
INTER-LS 210 L&S Career Development: Taking Initiative Credits: 1
Interdisciplinary course in career development that connects the liberal arts and sciences degree to academic and career preparation, practical job skills, goal-setting, critical thinking and reflection. Designed for second year students, but open to all students. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTER-LS 220 Windows on the World Credits: 3
Offered only in the summer session, "Windows on the World" provides an interdisciplinary introduction to the culture, history, politics and economics, arts and social issues of the world area which is its focus. Prereq: Open to all Undergrads. Cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

INTER-LS 250 Undergraduate Research Experience Credits: 1 - 3
Participation in research or creative endeavor led by faculty or instructional staff and in undergraduate Research Scholars Program. This course may also include participation in research discussion groups, critiques of readings, and preparation of written or oral reports. Prereq: Freshman or Sophomore standing, admission to the Undergraduate Research Scholars Program, and consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTER-LS 260 Internship in the Liberal Arts and Sciences Credits: 1
Enables students with outside internships to earn academic credit connected to their work experience, regardless of their major. Using online tools, students collaboratively analyze and discuss their internships with respect to the goals of a liberal arts and sciences education. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 315 Paradigms and Process in Academic Inquiry Credits: 2
Designed specifically for the research fellow, this course offers a structure for thinking about research that avoids reducing research to a single mode of thought and practice, and is thus inclusive of the range of approaches to research reflected in Inter-LS 250. Will address specific topics that relate to the day-to-day activities of doing research, and addresses issues of what does it mean to think like a researcher, to act like a researcher, to talk like a researcher? Prereq: Must have applied for & been accepted as a research fellow in the Undergraduate Research Scholars Progm
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTER-LS 400 L&S Junior/Senior Seminar Credits: 1 - 3
Interdisciplinary course for juniors and seniors. Topic will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Junior or Senior standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTER-LS 480 L & S Junior-Senior Honors Seminar Credits: 3
Interdisciplinary course for juniors and seniors in the L&S Honors Program. Topics will vary with instructor and will be announced in the Timetable. Enrollment limited. Prereq: Jr or Sr st and membership in L&S honors program
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTER-LS 700 Public Humanities: Theories, Methods, Cases Credits: 3
The aim of this course is to introduce graduate students to a range of methods, theories, and cases that represent the emerging field of the public humanities and to prepare graduate students to explore the range of opportunities that exist for them outside of academia. Students in the seminar will be expected to read, practice, and experiment. The course will focus on the limits, audiences, and outcomes of research in the humanities, including the possibility of translational research. The final project will involve the design and in some cases implementation of a project based upon your scholarly research. Students will undertake out-of-classroom projects and exercises in addition to readi
Typically Offered: Fall, Spring

INTER-LS 701 Topics: Graduate Students Interested in Teaching Credits: 1 - 3
Exposes graduate students to current pedagogical topics in interdisciplinary or broad disciplinary areas. Assists those who aspire to college teaching careers acquire skills they will use in their own classrooms, as well as in any teaching assignments on this campus. Prereq: Grad st
Typically Offered: Occasionally

INTERNATIONAL STUDIES
INTL ST  101 Introduction to International Studies  Credits: 3 - 4
Familiarizes students with the field of international studies, and performs an interdisciplinary examination of the cultural, political, economic, and social patterns that have defined the modern world.  Prereq:  Open to Fr.
L&S Breadth:  Social Science  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

INTL ST  211 Global Language Issues  Credits: 4
A series of modules, each showcasing one language and its culture. Each module tackles a major issue about language, such as extinction and revival, language and nationhood, how widely and deeply languages differ, language and wordview, writing systems and literacy, language discrimination and inequality.  Prereq:  Open to Fr.
L&S Breadth:  Humanities or Soc Sci  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

INTL ST  212 WIScholars: Wisconsin International Scholars Program Seminar  Credits: 1
Discussion of international events and topics designed specifically for WIScholars Program participants, geared toward fostering leadership skills.  Prereq:  None
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

INTL ST  310 International Learning Community Seminar  Credits: 1 - 3
A 1-3 credit class graded on a Credit / No Credit basis which addresses various international, cross-cultural and language topics of interest to the residents of the International Learning Community.  Prereq:  Open to Fr.
Students must be residents of the International Learning Community
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

INTL ST  317 The Politics of Human Rights  Credits: 3 - 4
Examines the origins and development of human rights in international politics. The course discusses what human rights are, international human rights movements, the international search for justice after mass crimes, and international humanitarian intervention.  Prereq:  Jr st
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

INTL ST  318 The Comparative Study of Genocide  Credits: 3 - 4
Examines the phenomenon of genocide in the modern world. The class covers the concept of genocide, theories of why genocide occurs, and particular cases in the 20th and 21st centuries.  Prereq:  Jr st
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

INTL ST  320 Contemporary Issues in International Studies  Credits: 1 - 4
Topics vary. Course may be repeated but not with same content.  Prereq:  Sophomore standing or consent of instructor
L&S Breadth:  Humanities or Soc Sci  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Summer

INTL ST  322 Washington DC Semester in International Affairs Internship Seminar  Credits: 4
Washington DC internship in international affairs. Open to program participants only.  Prereq:  Must be a participant in the Washington DC semester in international affairs program
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

INTL ST  325 Social Movements and Revolutions in Latin America  Credits: 3 - 4
An introduction to the major empirical and theoretical themes in the study of social movements and politics in Latin America. While it is impossible to cover every theoretical approach or Latin American case during the semester, the course should give students the tools to begin to think critically about where and why people engage in collective action. We will develop and hone these tools through thinking about Latin American cases, paying specific attention to revolutions, social movements, and riots. The course is designed in three parts. It begins by exposing students to the dominant theoretical paradigms in the study of contentious politics as well as some prominent critiques. The cours
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring
INTL ST 327 Indian Politics in Comparative Perspective Credits: 3
This course explores the socio-economic and political outcomes across India. This course will employ the major theories of comparative politics that explain political outcomes such as regime type, economic development and conflict. This course explores why some countries are democracies, while others are dictatorships; why some countries are poor, while others are rich; and why some countries experience high levels of violence, while others are peaceful. The course considers how India comports with standard theories in comparative politics and how standard theories might be revised in light of the Indian case.
The course maps variation on the sub-national and regional level. The course will
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 335 Globalization and Education Credits: 3
Introduces students to the origins, development, and debates in the field of globalization and education (GE); explores educational experiences in settings around the world; and examines how GE studies and approaches can inform learning, teaching, and research practices. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 373 Globalization, Poverty and Development Credits: 3
Addresses the process of globalization -- trade, international capital flows, labor migration and remittances, and aid -- from the perspective of developing economies and the development process. Prereq: AAE 215, Econ 101 or equivalent, or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

INTL ST 374 The Growth and Development of Nations in the Global Economy Credits: 3
This course explores the roles of markets, states, and civil institutions, using economic theory, computer simulations, and historical experience to better understand the forces that shape the wealth and well-being of nations and people around the world. Prereq: Econ 101, or Econ 102, or AAE 215, or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTL ST 401 Topics in Global Security Credits: 3 - 4
Contemporary issues in international studies in global security. Topics vary. Course may be repeated but not with the same content. Prereq: Sophomore standing or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 402 Topics in Politics and Policy in the Global Economy Credits: 3 - 4
Contemporary issues in international studies in politics and policy. Topics vary. Course may be repeated but not with the same content. Prereq: Sophomore standing or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 403 Topics in Culture in the Age of Globalization Credits: 3 - 4
Contemporary issues in international studies in global culture. Topics vary. Course may be repeated but not with the same content. Prereq: Sophomore standing or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 404 Topics in Global Environment Credits: 3 - 4
Contemporary issues in international studies in global environment. Topics vary. Course may be repeated but with same content. Prereq: Sophomore standing or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 423 Social Mobilization in Latin America Credits: 3
This course serves as an introduction to the major empirical and theoretical themes in the study of mobilization in Latin America. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 431 Contentious Politics Credits: 3 - 4
Social movements, revolutions, and riots continually shape and re-shape the world around us. The course will evaluate and apply dominant theoretical approaches to understanding contention through careful attention to empirical cases throughout the world. Prereq: Sophomore Standing and either POLI SCI 103 or INTL ST 101
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
INTL ST 436 Political Inequality: Measures, Causes, Effects and Remedies Credits: 3
In this course, we will review what political inequality is, and examine how scholars have measured it, and studied its causes, effects and remedies. The course will focus on inequalities in political participation and representation.  
Prereq: Sophomore standing  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 501 Study Abroad Topics in Global Security Credits: 1 - 6
Course reserved as a course equivalency for topics courses done in conjunction with Study Abroad. Prereq: Concurrent enrollment in a UW-Madison Study Abroad program  
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 502 Study Abroad Topics in Politics and Policy in the Global Economy Credits: 1 - 6
Course reserved as a course equivalency for topics courses done in conjunction with Study Abroad. Prereq: Concurrent enrollment in a UW-Madison Study Abroad program  
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 503 Study Abroad Topics in Culture in the Age of Globalization Credits: 1 - 6
Course reserved as a course equivalency for topics courses done in conjunction with Study Abroad. Prereq: Concurrent enrollment in a UW-Madison Study Abroad program  
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 504 Study Abroad Topics in Global Environment Credits: 1 - 6
Course reserved as a course equivalency for topics courses done in conjunction with Study Abroad. Prereq: Concurrent enrollment in a UW-Madison Study Abroad program  
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 520 Study Abroad Topics in International Studies Credits: 1 - 6
Course reserved as a course equivalency for topics courses done in conjunction with Study Abroad. Prereq: Concurrent Enrollment in a UW-Madison Study Abroad program  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 523 International Internship Credits: 1 - 3
Course reserved as a course equivalency for topics courses done in conjunction with study abroad. Prereq: Concurrent enrollment in a UW-Madison study abroad  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 535 Women's Global Health and Human Rights Credits: 3
This course will take a human rights approach to global women's health to provide an overview of health issues within the context of a woman's life cycle. It will pay special attention to the socio-cultural and economic factors that play a role in determining women's access to quality basic health care. Prereq: GWS 103 or another global health course  
L&S Breadth: Biological or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit

INTL ST 601 Topics in Global Security Credits: 1 - 4
Treatment of topics in global security. Can be repeated by students but not with the same content. Prereq: Prerequisites may vary with topic  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 602 Topics in Politics and Policy in the Global Economy Credits: 1 - 4
Treatment of topics in international political economy and policy studies. Can be repeated by students but not with the same content. Prereq: Prerequisites may vary with topic  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 603 Topics in Culture in the Age of Globalization Credits: 1 - 4
Treatment of topics in in culture in the age of globalization. Can be repeated by students but not with the same content. Prereq: Prerequisite may vary with topic  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
INTL ST 604 Topics in Global Environment Credits: 1 - 4
Treatment of topics in international relations and the environment. Can be repeated by students but not with the same content. Prereq: Prerequisites may vary with topic
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 620 Topics in International Studies Credits: 1 - 4
Treatment of topics in international studies. Can be repeated by students but not with the same content.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

INTL ST 622 Washington DC Sem in International Affairs Seminar Credits: 4
Seminar explores current issues in international affairs and the ways in which different organizations, businesses, corporations, NGOs and IOS seek to address them. Open to participants of the Washington DC semester in international affairs program only. Prereq: Must be a participant in the Washington DC semester in international affairs program only
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

INTL ST 680 Honors Thesis Colloquium Credits: 2
Honors Colloquium: A forum on the challenges of research/writing interdisciplinary topics in international studies. Discussions of strategy, oral presentations, critiquing and support. The seminar spans the process from initial attempts to final revisions. Prereq: Only International Studies majors writing honors thesis & consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

INTL ST 681 Senior Honors Thesis Credits: 3
Individual study and research for International Studies majors writing theses for the honors degree. Prereq: International Studies majors writing honors thesis and consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 682 Senior Honors Thesis Credits: 3
Individual study and research for majors writing theses for the honors degree; continuation of Intl St 681. Prereq: International Studies majors writing honors thesis and consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 691 Senior Thesis Credits: 3
Individual study and research for International Studies majors writing theses. Prereq: International Studies majors writing honors thesis and consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 692 Senior Thesis Credits: 3
Individual study and research for International Studies majors writing theses; continuation of Intl St 691. Prereq: Intl St 691 and declared International Studies major
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

INTL ST 699 Directed Study Credits: 1 - 4
Graded on lettered basis; requires written cons inst. Prereq: Jr or Sr st and written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

INTL ST 720 Global Studies Seminar Credits: 3
Provides a small graduate seminar setting for an interdisciplinary survey of major approaches to the study of globalization. It aims to familiarize students with key theories, issues, and debates, as well as methodological tools. Topics will include global economy, environment, health, culture, media, development, labor, governance, civil society, science, technology, and geography. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ITALIAN (FRENCH AND ITALIAN)

ITALIAN 100 Italian Language Abroad I Credits: 1 - 4
First semester Italian language course taken on a study abroad program for which there is no equivalent on this campus. Prereq: Stds may not receive cr for both Italian 100 & 101
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ITALIAN 101 First Semester Italian Credits: 4
For students who have not studied Italian. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 102 Second Semester Italian Credits: 4
Prereq: Italian 101 or 181 or 1 yr HS Italian. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 103 Italian Language Abroad II Credits: 1 - 4
Second semester Italian language course taken on a study abroad program for which there is no equivalent on this campus. Prereq: Stdts may not receive cr for both Italian 103 & 102
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 181 First Semester Italian Honors Credits: 4
Accelerated course for honors students with no previous training in the language; oral practice, grammar, reading, & reading. Prereq: Open to Fr. Stdts may not receive credit for both 101 & 181
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ITALIAN 182 Second Semester Italian Honors Credits: 4
Accelerated course for honors students. Oral practice, grammar, & reading. Prereq: Italian 101 or 181, or 2 yrs HS Italian. Open to Fr. Stdts may not receive credit for both 102 & 182
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ITALIAN 200 Italian Language Abroad III Credits: 1 - 4
Third semester Italian language course taken on a study abroad program for which there is no equivalent on this campus. Prereq: Stdts may not receive cr for both Italian 200 & 203
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 201 Italian for Speakers of Other Romance Languages Credits: 4
Accelerated development of oral, reading and writing skills up to a level equivalent to that of the end of second semester Italian (102). Instruction draws on features shared by Romance languages, with focus on distinctions particular to Italian. No previous knowledge of Italian is required. Prereq: 4 sem (or equiv proficiency) in another Romance lang, or cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN 203 Third Semester Italian Credits: 4
Class reading of modern Italian plays, novels, and short stories; study of idioms, conversation practice; review of grammar. Prereq: Italian 102 or 182 or 2 yrs HS Italian. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 204 Fourth Semester Italian Credits: 4
Continuation of Italian 203, with more advanced materials. Prereq: Italian 203 or 3 yrs HS Italian. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN 210 Italian Studies Abroad in the Humanities I Credits: 1 - 4
Italian studies course taken on a study abroad program for which there is no equivalent on this campus. Prereq: Current enr in a study abroad prgm
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 230 Modern Italian Culture Credits: 3
A survey of Italian history, art, music, politics, and general culture from the Risorgimento to the present. Prereq: Italian 204, 205 or equiv
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ITALIAN 298 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 299 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a lettered basis; requires cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ITALIAN  301 Italian for Reading Knowledge  Credits: 3
For students with language proficiency and graduate students who wish to acquire a reading knowledge of Italian. Intensive grammar; readings from appropriate texts in the humanities, sciences and social sciences. Gives no language credit. Prereq: So st L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN  310 Italian Studies Abroad in the Humanities II  Credits: 1 - 4
Italian studies course taken on a study abroad program for which there is no equivalent on this campus. Prereq: Current enr in a study abroad prgm L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN  311 Advanced Italian Language  Credits: 3
Development of accurate and nuanced capacity for expression in Italian and for understanding the spoken and written language. The course will also address Italian phonetics and phonology to develop accurate pronunciation. Prereq: Italian 204 or 205 L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ITALIAN  312 Writing Workshop  Credits: 3
Continuation of 311. Development of composition and editing skills with focus on grammatical accuracy, conventions, and rhetorical techniques for organizing information, presenting coherent arguments, and appropriateness of language to topic. Prereq: Italian 204 or consent of instructor L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ITALIAN  321 Introduction to Italian Literature  Credits: 3
From its beginnings through the Renaissance. Readings and discussion. Prereq: Italian 204 or 205 L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ITALIAN  322 Introduction to Italian Literature  Credits: 3
Continuation of 321. From the end of the Renaissance to the twentieth century. Prereq: Italian 204 or 205. Open to Fr L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ITALIAN  340 Structures of Italian  Credits: 3
Examination of Italian phonetics and phonology, morphology and word formation, and syntax, with attention to contrasts with English. Prepares for advanced courses in Italian linguistics. Prereq: 4th semester proficiency in Italian & cons inst L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN  350 Rome: The Changing Shape of the Eternal City  Credits: 3 - 4
Changing shape of Rome as a physical city and as a cultural metaphor from the Augustan age to the Renaissance. Prereq: Jr st or cons inst L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ITALIAN  420 Topics in Italian: Study Abroad  Credits: 1 - 6
A course carried with a UW-Madison Study Abroad Program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad prgm L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN  423 Corso Di Stilistica Applicata  Credits: 3
Prereq: Italian 311-312 or cons inst L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN  429 Introduction to the Romance Languages  Credits: 3
Introduction to structural similarities and differences apparent in major Romance languages (French, Italian, Portuguese, Spanish) and to their historical developments, with reference to basic linguistic features of each language: phonology, morphology, syntax, and lexicon. Does not count towards French major. Prereq: Span 226 or Portug 226 or French 228 or Ital 311, or cons inst L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN  450 Special Topics in Italian Literature  Credits: 3
Senior Proseminar; topics vary. Prereq: Italian 321-322 or cons inst L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
ITALIAN 452 Special Topics in Italian Studies: Culture, Film, Language Credits: 3
Examination of an aspect of Italian studies: culture, film, language; topic varies. Prereq: Italian 230 or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ITALIAN 453 Special Topics in Italian Studies: Culture, Film, Language Credits: 1
Examination of a particular aspect of Italian culture; topic varies. Prereq: Italian 230 or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ITALIAN 460 Italian Film Credits: 3
General survey of Italian film and of the relationship between film and the other arts. Consideration of film theory and of the Italian and European socio-political situation in the context of film production. Prereq: Stdts taking crse for cr toward Ital major must have Ital 204 or equiv; all other stdts must have Com Arts 350 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ITALIAN 550 Advanced Interdisciplinary Studies in Medieval Civilization Credits: 3
An integrated treatment of a specific theme, to be announced by a group of specialists in different fields. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ITALIAN 601 L’Ottocento Credits: 3
Major currents and writers of Italian Romanticism; Foscolo, Leopardi, Manzoni. Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 621 Il Settecento Credits: 3
Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 622 Il Settecento Credits: 3
Continuation of 621 Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 623 Il Teatro Italiano Credits: 3
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

ITALIAN 631 Lineamenti Di Letteratura Italiana Credits: 3
Prereq: Cons inst or 2 yrs college Italian
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 632 Lineamenti Di Letteratura Italiana Credits: 3
Prereq: Cons inst or 2 yrs college Italian
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 635 II Romanzo Italiano Credits: 3
Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 636 II Romanzo Italiano Credits: 3
Continuation of 635 Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 637 La Poesia del Novecento Credits: 3
A survey of major poets and poetic currents of the early twentieth century; the "Crepuscolari," Hermeticism. Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ITALIAN 641 Il Seicento: Ribelli, Libertini e Ortodossi Credits: 3
Lo sviluppo della cultura barocca; letture e discussioni. Prereq: Cons inst or 2 yrs college Italian
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ITALIAN 651 Il Rinascimento Credits: 3
I: Il Quattrocento. Lo sviluppo dell'umanesimo; Poliziano, Lorenzo de' Medici, Pulci, Boiardo, e Alberti; II: Il Cinquecento. Ariosto, Machiavelli, Castiglione, Tasso. Prereq: Italian 321-322 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN 659 Dante's Divina Commedia Credits: 3
Lectures on Dante's life and times, reading Divine Comedy, commentary, discussion, reports. Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ITALIAN 660 Dante's Divina Commedia Credits: 3
Continuation of 659  Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ITALIAN 671 Il Duecento Credits: 3
I: A systematic study of the earliest literary texts in Italy; the rise of the love lyric among the Sicilian poets; representative narrative works. II: The development of the lyric from Guittone d'Arezzo to the poets of the Dolce Stil Nuovo (Guinizzelli, Cavalcanti, Dante). Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN 672 Il Duecento Credits: 3
Continuation of 671  Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ITALIAN 681 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 682 Senior Honors Thesis Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 691 Senior Thesis Credits: 2
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 692 Senior Thesis Credits: 2
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 698 Directed Study Credits: 1 - 6
Cr/N. Prereq: Jr or Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ITALIAN 731 Lineamenti Di Letteratura Italiana Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ITALIAN 732 Lineamenti Di Letteratura Italiana Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ITALIAN 741 Seicento E L Arcadia Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ITALIAN 772 History of the Italian Language Credits: 3
Continuation of 771  Prereq: Grad st
Typically Offered: Occasionally
ITALIAN 799 Independent Study Credits: 1 - 6
Prereq: Grad st and cons inst
Typically Offered: Occasionally

ITALIAN 817 Romance Philology Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ITALIAN 821 Issues in Methods of Teaching French and Italian Credits: 1 - 3
Prereq: French/Italian 820; or foreign lang teaching experience
Typically Offered: Occasionally

ITALIAN 951 Seminar-Studies in Italian Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ITALIAN 952 Seminar-Studies in Italian Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

ITALIAN 990 Individual Research Credits: 1 - 12
In connection with the doctoral dissertation. Prereq: Cons inst
Typically Offered: Occasionally

JEWISH STUDIES

JEWISH 202 Topics in Jewish Studies Credits: 3
Special topics in Jewish studies. The topic is footnoted in the Timetable. Prereq: So st
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 211 Introduction to Judaism Credits: 4
General introduction to Judaism covering the biblical, classical rabbinic, medieval, and modern periods. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 213 Jews and American Pop. Culture Credits: 3 - 4
Explores the interplay between Jews and U. S. popular culture, covering such subjects as early 20th century vaudeville, the "golden age" of Hollywood, rhythm and blues music, television, and stand-up comedy. Prereq: None
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 219 The American Jewish Experience: From Shtetl to Suburb Credits: 4
Surveys American Jews from the eighteenth century until after WW II, examining political behavior (radicalism, liberalism, and nationalism), class formation, social mobility, culture, inter-ethnic group relations, religion, and problems in community building. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 220 Introduction to Modern Jewish History Credits: 4
The history of the Jews in selected parts of the world since the 17th century. Particular attention will be paid to the fact that this is the history of a minority group whose life unfolds in relationship to a larger society. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 227 Introduction to Biblical Literature (in English) Credits: 4
Introduction to the literature and literary history of the Old Testament, Apocrypha, Dead Sea Scrolls, Talmud, and Midrashim. Prereq: Not open to students that have completed HEBR ST 217
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 230 Elementary Topics in Jewish Literature Credits: 3 - 4
Elementary-level topics course in Jewish literature. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
JEWISH 231 Elementary Topics in Jewish History  Credits: 3 - 4
Elementary-level topics course in Jewish history.  Prereq:  Prerequisites vary by topic
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 232 Elementary Topics in Jewish Philosophy and the Arts  Credits: 3 - 4
Elementary-level topics course in Jewish philosophy and the arts.  Prereq:  Prerequisites vary by topic
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 233 Elementary Topics in Jewish Studies: Social Sciences  Credits: 3 - 4
Elementary-level course in Jewish Studies; topics drawn from the social sciences and vary by semester.  Prereq:  Prerequisites vary by topic
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 236 Bascom Course  Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields.  Prereq:  Successful completion of or exemption from Com A requirement. Open to Fr.
General Education:  COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 237 Biblical Poetry in Translation  Credits: 3
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 241 Introduction to Biblical Archaeology  Credits: 4
An overview of archaeology and its relationship to understanding the biblical world. Prereq:  Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 258 The Jews, States, and Citizenship: A Sociological Perspective  Credits: 3
Introduction to historical sociology of citizenship through a comparative investigation of Jewish emancipation in nineteenth-century Europe, including social origins of emancipation, its consequences for the social organization and collective identity of Jews, and Jewish responses to emancipation.  Prereq:  Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 267 Yiddish Song and the Jewish Experience  Credits: 3 - 4
Explores Yiddish song as an expression of the modern Jewish experience from Eastern Europe to the US. Covers folk song, popular and art music. Music and readings together provide an analytical framework to examine cultural and historical issues.  Prereq:  For Communication B sections, satisfied Communication A requirement
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

JEWISH 269 Yiddish Literature and Culture in Europe  Credits: 3
Exploration of European Yiddish fiction, poetry, folklore, and cinema, with a focus on works of the 19th and 20th centuries.  Prereq:  Open to Freshmen
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 278 Food in Rabbinic Judaism  Credits: 3 - 4
Rabbinic literature frames the fundamental attitudes for how Judaism relates to food. Students will examine the history of food in rabbinic Judaism. In addition, theories from the field of food studies will be applied to rabbinic texts.  Prereq:  Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 279 Yiddish Literature and Culture in America  Credits: 3
Exploration of American Yiddish poetry, fiction, theater, and cinema created by European Jews in the United States.  Prereq:  Open to Freshmen
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 299 Directed Study  Credits: 1 - 3
Graded on a lettered basis; So st; requires cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
JEWISH 301 Introduction to Hebrew Literature Credits: 3
Selected works for different periods and genres; class discussions in Hebrew. Prereq: Jewish Studies 202
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 302 Introduction to Hebrew Literature Credits: 3
Continuation of 301. Prereq: Jewish Studies 301
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 318 Modern Jewish Literature Credits: 3 - 4
Pre-modern Jewish society's breakdown, immigration, the challenges of integration and exclusion, and the establishment of new communities will serve as a backdrop for the analysis and comparison of Jewish literary texts written in Hebrew, Yiddish, German, Russian, and English. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 328 Classical Rabbinic Literature in Translation Credits: 3 - 4
Introduction to the literature of the Classical Rabbinic or Talmudic period of Judaism (2nd to 7th centuries CE). Historical and intellectual background; the interrelation of liturgy, legal and non-legal literature. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 332 Prophets of the Bible Credits: 4
An introduction to the thought, literature, and history of the prophets of ancient Israel (in English). Prereq: CLASSICS/JEWISH/LITTRANS/RELIG ST 227 or Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 335 King David in History and Tradition Credits: 3
An exploration of the literary and historical aspects of the text of 1-2 Samuel + 1 Kings 1-2; the history and archaeology of Jerusalem during the tenth century B.C.E.; and the varieties of ways in which the figure of King David has been received in subsequent religious and secular literature, visual art, music, television, and cinema. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

JEWISH 343 Israeli Fiction in Translation Credits: 3 - 4
Major writers, trends and themes in Israeli fiction from pre-State period to present. Meets with LitTrans 367. Prereq: None
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 346 Jewish Literature of the Greco-Roman Period Credits: 3
Jewish literature from 350 BCE to 150 CE. The Greek and Hebrew sources include stories, religious poetry, wisdom books and apocalyptic texts. Readings (in translation) from the Apocrypha, Pseudepigrapha, and the Dead Sea Scrolls in their historical, cultural and literary setting. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 356 Jerusalem, Holy City of Conflict and Desire Credits: 3
Jerusalem, the Holy City for Judaism, Christianity, and Islam, has become the center of religious, political, and national contention. This course explores the sources of the conflict and its development over the centuries, with the aim of illuminating the complex situation of the region and its implications for the world. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 367 Israeli Fiction in Translation Credits: 3 - 4
Major writers, trends and themes in Israeli fiction from pre-State period to present. Meets with Hebrew Studies 343. Prereq: Open to Fr. 4th credit earned by prosmr meetings & research paper
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 368 The Bible in the Middle Ages Credits: 3
Medieval Bible and its shaping effect on medieval culture. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
JEWISH 372 Jews of Central and Eastern Europe Credits: 3 - 4
Course will focus on main characteristics of Central and Eastern European Jews (Ashkenazim) in their cultural-historical development. Prereq: So st or cons inst. Open to Fr with cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JEWISH 373 Modern Political History of the Jews: 1655-1919 Credits: 4
Focuses on the politics of emancipation (the acquisition of civil rights). Analyzes Jewish politics from the beginnings of political integration into European society (1695) to the completion of the process in the aftermath of World War I.
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

This course will focus on Jewish socialist and nationalist political movements, analyzing their origins in imperial Russia in the late 19th century and their development in the Soviet Union, Poland, Palestine/Israel, and the U.S. in the 20th century.
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

JEWISH 377 Jewish Cultural History (in English) Credits: 4
Survey of Jewish cultural history from the Biblical to Talmudic and early Muslim periods; and its interaction with other cultures, including Hellenistic, Roman, and Muslim. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit

JEWISH 401 Topics in Modern Hebrew / Israeli Literature and Culture I Credits: 3
Readings in Hebrew literature, class conducted in Hebrew. Prereq: Jewish Studies 302.
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

JEWISH 402 Topics in Modern Hebrew / Israeli Literature and Culture II Credits: 3
Continuation of 401. Prereq: Jewish Studies 401
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

JEWISH 416 Eastern European Jews in the United States, 1880s-1930s Credits: 3 - 4
Analyzes the culture and community of the two million Jews who migrated to the United States between 1880 and 1930.
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

JEWISH 421 Sophomore/Junior Seminar: Introduction to Jewish Studies Credits: 3
This course will introduce prospective majors to the methods and concerns of Jewish studies. It will focus on a topic relevant to all periods of the Jewish experience using multiple disciplines (e.g., history, philosophy, literature, Biblical studies, political science.
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JEWISH 430 Intermediate Topics in Jewish Literature Credits: 3 - 4
Intermediate-level topics course in Jewish literature. Prereq: Prerequisites vary by topic
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JEWISH 431 Intermediate Topics in Jewish History Credits: 3 - 4
Intermediate-level topics course in Jewish history. Prereq: Prerequisites vary by topic
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JEWISH 432 Intermediate Topics in Jewish Philosophy and the Arts Credits: 3 - 4
Intermediate-level topics course in Jewish philosophy and the arts. Prereq: Prerequisites vary by topic
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JEWISH 433 Intermediate Topics in Jewish Studies: Social Sciences Credits: 3 - 4
Intermediate-level course in Jewish Studies; topics drawn from the social sciences and vary by semester.
Prereq: Prerequisites vary by topic
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JEWISH 435 Jewish Philosophy from Antiquity to the Seventeenth Century Credits: 3
A survey of major philosophers and philosophical currents within Judaism from antiquity through the seventeenth century. Prereq: 3 credits in philosophy
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
JEWISH 442 Moral Philosophy and the Holocaust  Credits: 3
Selected moral and philosophical issues raised by the Holocaust such as when and whom to rescue; includes issues arising after the annihilation such as forgiveness and reconciliation.  Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 448 Classical Rabbinic Texts  Credits: 3
Introduction to the language and literature of the rabbinic period in Judaism (2nd-7th century CE). Acquisition of language skills to read Hebrew texts of this period, including Mishna, Tosephta, and Midrash.  Prereq: Hebrew 202 or 324 or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 450 Undegraduate Seminar in Judaism and the Arts  Credits: 3
This course provides an understanding of Jewish art and artists in the shaping of culture both historically and today through lectures and discussions; guest scholars, artists and critics; and performances, exhibitions and screenings.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 451 Biblical Archaeology  Credits: 3
An examination of current problems, methods, and trends in archaeological research in the lands of the Bible.  Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 452 Biblical Archaeology  Credits: 2
Continuation of 451.  Prereq: Junior standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 490 Topics in Jewish Studies  Credits: 3
Special topics in Jewish studies. The topic is footnoted in the Timetable.  Prereq: Jr st; some prior coursework in Jewish studies or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 510 German-Jewish Culture Since the 18th Century  Credits: 3
Investigates German-Jewish culture since the 18th century, concentrating on toleration, emancipation, acculturation, assimilation, anti-Semitism, and Bildung.  Prereq: Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 513 Biblical Texts, Poetry  Credits: 3
Critical reading of selected texts from the Minor Prophets and the Writings.  Prereq: HEBR-BIB 324
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 514 Biblical Texts, Poetry  Credits: 3
Continuation of 513.  Prereq: HEBR-BIB 513
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 515 Holocaust: History, Memory and Education  Credits: 3
This course explores the ways in which Holocaust history, memory and education are mutually entangled, politically charged and morally complex. Using primarily American sites of memory, students will critically analyze a variety of representations of the Shoah—in literature, films, memoirs, monuments, museums and classrooms.  Prereq: Jr st or cons inst

JEWISH 518 Anti-Semitism in European Culture, 1700-1945  Credits: 3
A critical review of major theories of anti-Semitism and a history of modern anti-Semitism.  Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 529 Intellectual and Religious History of European Jewry, 1648-1939  Credits: 4
Main movements and trends of thought, religion, and culture as European Jewry gained emancipation and adjusted to mass society.  Prereq: Hist 119 or 120 or 512 or 513; or Hist/Jewish 220; or Hebr St/Jewish 471 or 472
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
JEWISH 533 Readings in Contemporary Hebrew Literature Credits: 3
Prereq: JEWISH 402
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JEWISH 534 Readings in Contemporary Hebrew Literature Credits: 3
Prereq: JEWISH 533
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 539 Jewish Literatures in Diaspora Credits: 3
An exploration of Jewish literature in English and in Anglophone contexts. Prereq: 6 credits of introductory English
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

JEWISH 593 Literature of Jewish Identity in America Credits: 3
The construction of Jewish American identity within American life. Prereq: 6 credits of introductory literature
Ethnic Studies: Yes  L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JEWISH 595 The Holocaust: Facts, Trials, Verdicts, Post-Verdicts Credits: 3
The background to the Holocaust, its implementation, the efforts to impose the criminal law on its perpetrators and the points of interaction between the Holocaust and U.S. policy. Prereq: Law stdt or Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

JEWISH 625 Advanced Topics in Jewish Literature Credits: 3 - 4
Advanced-level topics course in Jewish literature. Prereq: Prerequisites vary by topic
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 631 Advanced Topics in Jewish History Credits: 3 - 4
Advanced-level topics course in Jewish history. Prereq: Prerequisites vary by topic
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 632 Advanced Topics in Jewish Philosophy and the Arts Credits: 3 - 4
Advanced-level topics course in Jewish philosophy and the arts. Prereq: Prerequisites vary by topic
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 633 Advanced Topics in Jewish Studies: Social Sciences Credits: 3 - 4
Advanced-level course in Jewish Studies; topics drawn from the social sciences and vary by semester. Prereq: Prerequisites vary by topic
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 665 Israeli Politics and Society Credits: 3 - 4
Course provides historical and analytical understanding of Israeli internal political life and institutions. Attention will be paid to political culture, coalition formation and ethnic politics as they are manifested in Israeli politics. The effect of regional conflict upon Israel's domestic politics will also be considered. Prereq: Jr st & intro class in poli sci
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JEWISH 675 Research Colloquium for Majors Credits: 1
Colloquium for students conducting research under Jewish Studies 677, which must be taken concurrently. Discussion of problems that arise in conducting research, interpreting evidence, and composing an argument. Students will present research-in-progress for group discussion. Prereq: Major in Jewish studies; permission of undergrad advisor; & cons inst. Con reg in Jewish 677
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JEWISH 677 Independent Research for Majors Credits: 3
Original research project supervised by individual faculty; only for students majoring in Jewish studies. Topics depend upon student's interest and faculty member's expertise. Students must register concurrently in Jewish Studies 677. Prereq: Major in Jewish studies; permission of undergrad advisor; & cons inst. Con reg in Jewish 675
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
JEWISH 681 Senior Honors Thesis Credits: 3
Prereq: Consent of director
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

JEWISH 682 Senior Honors Thesis Credits: 3
Prereq: Consent of director
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

JEWISH 691 Senior Thesis Credits: 3
Prereq: Consent of director
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

JEWISH 692 Senior Thesis Credits: 3
Prereq: Consent of director
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

JEWISH 699 Directed Study Credits: 1 - 3
Prereq: Graded on a lettered basis; Jr st; requires cons inst
L&S Level: Intermediate/Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

JEWISH 954 The Dead Sea Scrolls Credits: 2
Research in the literature, religion, and society of the Qumran community. Prereq: 2 yrs of Biblical Hebrew & Graduate standing, or consent of instructor
Typically Offered: Occasionally

JEWISH 956 Seminar in Early Biblical Interpretation Credits: 2
A study of the forms and content of biblical interpretation in Ancient Israelite and Jewish texts. The focus is on three broad domains of literature: the Hebrew Bible, Second Temple sources, and rabbinic midrash. Prereq: 2 yrs of Biblical Hebrew & Grad standing, or consent of instructor
Typically Offered: Occasionally

JOURN AND MASS COMMUNICATION

JOURN 162 Mass Media in Multicultural America Credits: 3
An introduction to the roles and functions of print, film, electronic and digital media in multicultural America. International comparisons highlight differences and commonalities in the social and cultural position of mass media in societies with racially and ethnically diverse populations. Prereq: None
Ethnic Studies: Yes   L&S Breadth: Social Science   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall

JOURN 175 Media Fluency for the Digital Age Credits: 3
The media landscape has changed vastly over the last 20 years, and it has major ramifications for how we see the practice and professions of journalism and strategic communication. Through discussions in class and a group media fluency blog, students will examine and engage with this contemporary media landscape. Prereq: None
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall

JOURN 176 Special Topics in Mass Communication Credits: 3
Special focus on a specific conceptual issue or topic involving mass communication. Prereq: Freshmen or Sophomore standing
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring, Summer

JOURN 201 Introduction to Mass Communication Credits: 4
How the mass media are organized and how they function in modern society; their technological basis, economic and political foundations, and social implications. Prereq: Open to Fr; completion of Com-A crse
General Education: COM B   L&S Breadth: Social Science   L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring
JOURN 202 Mass Communication Practices Credits: 6
Communication as a process involving sender and receiver, message and medium. Course provides students with a foundation of basic communication skills, helps students develop an appreciation of how different media influence the nature of information presented, and introduces students to technical skills. Prereq: Admission to Sch of Journ
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 335 Principles and Practices of Reporting Credits: 4
Basic reporting for print and electronic media. Students will bring together technical and conceptual skills by creating a variety of print, audio, and web-based news stories on a current public issue. Prereq: JOURN 202
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 345 Principles and Practice of Strategic Communication Credits: 4
Introduction to strategic communication for students interested in advertising, public relations, health communications, and political campaigns. Prereq: JOURN 202
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 401 In-Depth Reporting Credits: 4
Advanced reporting with emphasis on critical evaluation of evidence and on recognizing the complex effects of government actions. Students will explore and develop community context stories that originate in a range of venues from the courts to the schools. Prereq: Journ 335
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 404 Interpretation of Contemporary Affairs Credits: 4
Preparing and writing of editorials, columns and news analyses. Prereq: Journ 335
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 405 Creative Nonfiction Credits: 4
Creative elements of non-fiction story telling to develop skills necessary for writing across the journalistic spectrum, from newspapers to magazines to books. Prereq: Journ 335
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 411 Multimedia Design Credits: 4
This course focuses on visual communication and graphic design in multimedia contexts. Students build design and production techniques to relay creative messages through print and digital media. Content explores design theory and techniques, as well as the effects and ethics of visual media messages. Prereq: JOURN 335 or 345
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JOURN 415 Science and Environmental Journalism Credits: 4
Instruction and practice in strategies for communicating science to the public. Emphases include (1) how to explain difficult concepts and processes; (2) skills for telling interesting and artful stories; and (3) strategies for making reasonable judgments about scientific evidence. Prereq: Journ 335; cons inst for non-majors
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 417 Magazine Publishing Credits: 4
This course takes an integrated, in-depth approach to magazine management, writing, editing and design. It covers the magazine industry from both the editorial and business ends, bringing together journalism and strategic communication students. The course produces Curb magazine in print, online and mobile formats. Prereq: JOURN 335 or 345
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JOURN 419 Electronic News for Web and Broadcast Credits: 4
News reporting, writing, and editing for the World Wide Web and for broadcast; includes interviewing, use of electronic equipment and presentation of webcasts, issues and problems in electronic news, production of webcasts. Prereq: Journ 335
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 420 Investigative Reporting Credits: 4
This class will teach the techniques of investigative and long-form enterprise reporting. Students will engage in extensive reporting in the field, and produce a final project. Prereq: JOURN 335
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
JOURN 445 Creative Campaign Messages Credits: 4
Introduction to the creative aspects of message development for advertising, public relations, and other strategic communications. Prereq: JOURN 345
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 447 Strategic Media Planning Credits: 4
Introduction to media planning for students interested in careers in advertising, public relations, or other forms of strategic communication. Prereq: Journ 345
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 449 Account Planning and Strategy Credits: 4
Process of planning, implementing, and analyzing strategic communication campaigns. Prereq: JOURN 345
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 463 Digital Media Strategies Credits: 4
Provides an overview of digital media from an objective, strategy, and tactical planning perspective within strategic communication media and promotion campaigns. This course is geared toward students with an interest in careers in advertising, public relations, or other forms of strategic communication. Because of the rapid growth of digital communications, students will benefit from knowing more about digital media whether working in account, media or creative at an agency or corporation. Prereq: Declared in Journalism program and JOURN 345
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

JOURN 464 Public Relations Strategies Credits: 4
Provides an overview of public relations from an objective, strategy, and tactical planning perspective within strategic communication campaigns. A depth course; it takes one core element of a strategic communications campaign, and provides an in-depth study into the topic area of public relations. This course is geared toward students with an interest in careers in advertising, public relations, or other forms of strategic communication. Prereq: JOURN 345
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

JOURN 475 Special Topics in Advanced Concepts and Skills Credits: 1 - 4
Exploration of a particular set of concepts and skills in more depth. Subject will vary. Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 544 Introduction to Survey Research Credits: 3
Theory and practice of survey research; planning, sampling, questionnaire construction, interviewing, content analysis, machine tabulation, analysis of data; two hours lecture; two hours lab or field work. Prereq: Junior standing
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 558 Public, Community, and Alternative Media Credits: 3
Examination of media outside the dominant commercial model, especially local and alternative practices, and their cultural role. Prereq: Com Arts 351
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

JOURN 560 History of Mass Communication Credits: 4
Evolution of the mass media in the United States in the context of political, social, and economic change. Prereq: Jr st
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 561 Mass Communication and Society Credits: 4
Relationships between mass communications and society; analysis and evaluation of media performance and of suggestions for change. Prereq: Fall semester, Journalism Srs; spring semester, Sr st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

JOURN 563 Law of Mass Communication Credits: 4
Freedom of speech and press with particular emphasis on major legal issues confronting media practitioners; introduction to such areas of law as censorship, libel, invasion of privacy, access to information, regulation of electronic media and commercial speech. Prereq: Junior standing
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
JOURN 564 Media and the Consumer Credits: 4
Advertising and other mass media content from the consumer's viewpoint; consumer's need and opportunities for information, and use of opportunities; consumer evaluation of media performance, guidelines for effective use; alternative means for obtaining information; implications of consumer movement. Prereq: Junior standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 565 Effects of Mass Communication Credits: 4
Use and effects of mass communication for individuals and societies. Course examines who is affected, what effects occur and how much, what different media content is involved and what situations make effects more or less likely. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 601 Colloquium in Professional Communication Careers Credits: 1
Weekly colloquium on current issues and career options in journalism & mass communication, featuring professional speakers from academia, industry, government, and the non-profit sector. Prereq: Junior standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 614 Communication and Public Opinion Credits: 4
The role of the mass media of communication in the formation of public opinion. Propaganda goals of government, political, economic, and social groups. Prereq: Sr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

JOURN 616 Mass Media and Youth Credits: 3
Children's and adolescents' use of mass media and mass media effects on them. Particular attention is given to changes in comprehension and other cognitive activities that give insights into media use and effects. Prereq: JOURN 202, COM ARTS 325, HDFS 362, LSC 251
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 617 Health Communication in the Information Age Credits: 3
This course will examine the role of communication in health, how the revolution in information technology has affected health communication, and the assumptions about health information and communication that drive current efforts to use technologies. Prereq: Journ 565 or equivalent
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

JOURN 618 Mass Communication and Political Behavior Credits: 4
Interrelationships of news media, political campaigning, and the electorate. Impact of media coverage and persuasive appeals on image and issue voting, political participation and socialization. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 620 International Communication Credits: 4
Historical, political, economic and cultural trends in global mass communication systems. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 621 Mass Communication in Developing Nations Credits: 4
Development, structure, and role of mass communication systems in Africa, Asia, and Latin America. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 650 History of Books and Print Culture in Europe and North America Credits: 3
History of books and print culture in the West from ancient times to the present. Focus on the influence of reading and writing on social, cultural, and intellectual life. Methodologies, theories, and sources for study of book and print culture history. Prereq: Junior standing; or Graduate student in SLIS
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

JOURN 658 Communication Research Methods Credits: 4
Survey of methods for investigating mass communication process and effects. Prereq: Journ majors: admission to the school; non-majors: cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JOURN 662 Mass Media and Minorities Credits: 4
Representations of minority groups in U.S. news and entertainment mass media. Historical, social, political, economic, and other factors influencing the mass mediated depictions of minorities. Prereq: Junior standing
Ethnic Studies: Yes  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
JOURN 664 Social Networks in Communication Credits: 3
Examines key concepts in social network theory and develops and applies them to the field of communication. Attention is paid to the differences between social and online networks, as well as their relationships. This class will explore major concepts and questions in social network theory and analysis, including the elements that make up a network; network relationships (e.g., homophily, knowing others like ourselves); the construction of whole social networks out of dyads (two people) and triads (three); strong and weak ties; roles and positions; groups, cliques, and clusters; as well as small worlds and communities. Emphasis will be on what these concepts mean and how they work. There will
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 666 Professional Responsibility in Mass Communication Credits: 3
Explores concept of "professionalism" in journalism and strategic communication, with emphasis on societal expectations for media and ethical systems. Applies theory to specific cases. Prereq: Admission to Sch of Journ & Mass Comm, Sr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 669 Literary Aspects of Journalism Credits: 3
Critical reading of the best reporting and writing. Prereq: Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 670 Community Service Learning: Technology for Social Change Credits: 3
The course is an upper-level undergraduate/graduate service learning course that integrates the study of the social impact of new communication technologies into community engagement practices. The course will illuminate social, political, psychological, and policy implications of the adoption and use of new and emerging technologies and provide an educational opportunity to apply the knowledge and skills obtained from the class to a local, community-based collaborative project (i.e. integrated social media campaign) that aims to strengthen the community. This collaborative project is a hands-on experiment that demonstrates how to use new communication technologies for social change. Prer
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

JOURN 675 Topics in Government and Mass Media Credits: 3
Analysis of political and legal relationships between mass communication and government with emphasis on current problems and issues. Prereq: Sr or Grad st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 676 Special Topics in Mass Communication Credits: 1 - 4
Analysis of a conceptual mass communication issue in more depth than is available in existing courses. Subject will vary. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 677 Concepts and Tools for Data Analysis and Visualization Credits: 3
Ours has become a data society. Like at no other time, our world--the natural world, from storm systems to diseases; governments and companies; and our conversations with friends and relatives, even our movements--is recorded in digital format. A few years ago, Google CEO Eric Schmidt famously stated that "There was 5 exabytes of information created between the dawn of civilization through 2003, but that much information is now created every 2 days, and the pace is increasing." (An exabyte is 1 trillion megabytes.) The result is that professional communicators in journalism and mass communication, as well as researchers and private firms, now literally have more data than they know what to d
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

JOURN 678 Legal & Ethical Dimensions of Emerging Media Credits: 3
Examines the legal & ethical questions surrounding digital media and their effects on society and individuals. Prereq: Junior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 682 Senior Honors Thesis Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
JOURN 691 Senior Thesis Credits: 3  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 692 Senior Thesis Credits: 3  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

JOURN 697 Internship Credits: 1 - 3  
Students may earn no more than three internship credits as a part of their degree program. Prereq: Admission to Sch of Journ and cons inst; graded on a Cr/N basis  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 698 Directed Study Credits: 1 - 6  
Prereq: Jr or Sr st. Graded on Cr/N basis; requires cons inst  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 699 Directed Study Credits: 1 - 6  
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

JOURN 800 Advanced Mass Media Practice Credits: 3  
Advanced projects in professional practice in mass media. When course focuses on journalism, it typically emphasizes advanced projects in specialized reporting. Course is designed for professional-track M.A. students. Emphasis varies with instructor. Course may be repeated with different instructor. Prereq: Professional experience or crses & cons inst  
Typically Offered: Occasionally

JOURN 801 Mass Communication and the Individual Credits: 3  
Theory and research on individuals' use of mass communication and effects of mass communication. Topics include choice, selection and functions of mass media use, attention and cognitive processing, information effects, persuasion and emotion/involvement, and social and behavioral effects. Prereq: Graduate or professional standing  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

JOURN 802 Mass Communication and Society Credits: 3  
This course examines systematic procedures for theory building and comparison of theories of communication processes between mass media and other societal institutions and their relationships with both individuals and micro-social systems. Prereq: Graduate or professional standing  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

JOURN 803 Mass Communication and Culture Credits: 3  
Intensive readings focusing on the critical studies and/or cultural studies traditions in mass communication theory and research. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

JOURN 808 Mass Communication History Credits: 3  
Intensive reading and discussion designed to introduce students to literature of mass communication. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

JOURN 811 Conceptualization and Design of Mass Communication Research Credits: 2 - 3  
Assists students in turning research questions into substantive research designs with understanding of the concepts involved. For most students, the final product will be a well-developed thesis or dissertation proposal. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

JOURN 812 Qualitative Communication Research Methods Credits: 3  
Course in research methodology designed to assist students to design research, analyze and interpret evidence, and develop a deeper appreciation of research strategies. Prereq: Graduate or professional standing  
Typically Offered: Occasionally
JOURN 820 Mass Communication Law and Policy Credits: 3
Intensive reading and discussion focusing on theories of press freedom and current issues in mass communication law and policy. A bibliographic essay will be required. Prereq: Graduate or professional standing
Typically Offered: Occasionally

JOURN 821 Health Communication Credits: 3
This course considers the application and integration of theory in understanding the effects of mass media, with close attention to health communication campaign messages. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

JOURN 822 Global Communication Credits: 3
Readings and discussion focusing on global media issues. Topics may include news flow, cultural imperialism, representations, history and political economy, globalization trends, new technologies, mass media and nation building, communication and grassroots politics. Prereq: Graduate or professional standing
Typically Offered: Occasionally

JOURN 823 Science and Environment Communication Credits: 3
Course uses available scholarship and commentary to track the evolution of mass media coverage of science and the environment. Emphasis on how journalists utilize evidence, the influence of scientific and journalistic norms on stories, and the effects of mass media on science and environment messages to the public. Prereq: Graduate or professional standing
Typically Offered: Occasionally

JOURN 824 Race, Ethnicity and Media Credits: 3
This course examines key theoretical and empirical readings in the area of race/ethnicity and media. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

JOURN 829 Political Communication Credits: 3
This course examines the role of communication in American politics. Topics covered include the communication of politics (e.g., communication by politics elites, effects of mass media and interpersonal communication on political attitudes) as well as the politics of communications (regulation of political communication, policy issues, etc.). Prereq: Grad st or cons inst
Typically Offered: Occasionally

JOURN 831 Psychology of Entertainment Media Credits: 3
This course is designed to provide an in-depth look into entertainment media, including its effects on individuals, social groups, and society. The focus on entertainment content is across platforms - from "mass" to social media. Emphasis will be paid to psychological, individual-level effects. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

JOURN 833 Technology and Society Credits: 3
This seminar considers the effects of new communication technologies on everyday life and political mobilization. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

JOURN 840 Strategic Mass Communication Credits: 3
Intensive readings focusing on theories, strategies, and methods involved in the strategic uses of mass communication. The course may focus on macro or micro issues. Prereq: Grad st
Typically Offered: Occasionally

JOURN 880 Topics in Mass Communication Credits: 3
In-depth investigation of a specific topic in mass communication. Prereq: Grad st
Typically Offered: Occasionally

JOURN 901 Colloquium in Mass Communication Credits: 1
May be repeated to a maximum of 3 credits. Colloquium series for communication graduate students. Course will offer research presentations by mass communication scholars, and is designed to acquaint graduate students with theoretical and methodological approaches to the study of communication. Prereq: Grad st
Typically Offered: Occasionally
JOURN 902 Graduate Teaching Colloquium Credits: 1
Colloquium series for graduate students in fields related to communication and information studies. Course meets once per week for a teaching presentation by a guest faculty or staff member on various theoretical and practical approaches to teaching and learning in the communication and information fields. Prereq: Graduate Students only
Typically Offered: Spring

JOURN 919 Seminar-History of Mass Communication Credits: 3
Seminar in the history of mass communication in which students are expected to produce original research based on primary documents. Prereq: Cons inst
Typically Offered: Occasionally

JOURN 990 Thesis Credits: 1 - 9
Prereq: Grad st
Typically Offered: Occasionally

JOURN 999 Independent Research Problems Credits: 2 - 4
Prereq: Grad st
Typically Offered: Occasionally

LAFOLLETTE SCHOOL PUB AFFAIRS

PUB AFFR 420 Administrative Law Credits: 3 - 4
Delegation of powers, elements of fair administrative procedure, judicial control over administrative determination. Prereq: Jr st & Poli Sci 104, 184 or 404; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PUB AFFR 548 The Economics of Health Care Credits: 3 - 4
Analysis of the health care industry. Markets for hospitals and physicians' care, markets for health manpower, and the role of health insurance. Prereq: Econ 301, or Pub Affr 880 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PUB AFFR 694 Management of Civil Infrastructure Systems Credits: 3
Comprehensive systems approach to civil infrastructure and asset management with emphasis on transportation facilities. Social, political, economic factors that influence transportation planning, design, construction, maintenance and operation. Needs assessment, information management, performance measurement, life cycle cost and benefits analysis, prioritization and optimization, budgeting and finance. Prereq: Grad st or cons inst, & Civ Engr 494 or equiv
Typically Offered: Spring

How powerful is non-military power? What are its vectors and its limits? International relations theorists have defined soft power as "the ability to get what you want through attraction rather than coercion." This graduate seminar will put this notion to the test. We will investigate how elites, interest groups, religious bodies, and nation-states seek to exercise hegemony in the international order through non-violent means. How was "soft power" implemented on the ground in the 20th century- and how did its use transform international relations? To probe these questions, we will focus on a series of case studies in European and U.S. international history. Topics covered include the expansi
Typically Offered: Fall, Spring

PUB AFFR 734 Regional Economic Problem Analysis Credits: 3
Examination of major theories of regional economic development, with special emphasis upon the evolution and amelioration of regional economic problems. Selected techniques of regional analysis, including economic base multipliers, input/output models, and shift-share analysis are used in the context of setting regional development goals. Prereq: Grad st
Typically Offered: Occasionally

PUB AFFR 765 Issues in Educational Policy Analysis Credits: 3
Theory, research, and practical experience in educational policy analysis, including the social construction of policy problems in education; the design, implementation, and evaluation of policy responses; and the practical and ethical dilemmas of the policy analyst. Prereq: Grad st or cons inst
L&S Level: Advanced  Typically Offered: Occasionally
PUB AFFR 795 Economics of Education Credits: 3
Shows how basic economic concepts are applied to the study of education policy and what economic research has concluded about the efficiency of various types of education systems. Prereq: Grad st
Typically Offered: Occasionally

PUB AFFR 799 Independent Reading Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PUB AFFR 800 Public Affairs Professional Development Workshop Credits: 1
This public affairs career development seminar includes sessions on professional writing, presentations, and job search skills training for students interested in finding jobs. A significant element of the seminar will be presentations from practitioners from the public, private and non-profit sectors. Prereq: La Follette student
Typically Offered: Occasionally

PUB AFFR 802 Public Affairs Seminar Series Credits: 1 - 2
This course provides an opportunity to cross disciplinary boundaries to review and discuss the latest research by top public management, policy, and poverty scholars from on and off campus. The seminar series provides new and unpublished research on these issues as well as practitioner insight. Prereq: None
Typically Offered: Fall, Spring

PUB AFFR 805 Gender Issues in International Educational Policy Credits: 3
Exploration and analysis of recent debates related to gender issues in international educational policy, including the intersection of education and demographic processes, the play of history and culture, and the social construction of gender. Prereq: Grad st or cons inst
Typically Offered: Occasionally

PUB AFFR 809 Introduction to Energy Analysis and Policy Credits: 3
Interdisciplinary seminar for the Energy Analysis and Policy Curriculum. Strategy and policy problems in energy policy, both national and international. Prereq: Grad st & admission to Energy Anal and Policy curric or cons inst
Typically Offered: Fall

PUB AFFR 810 Energy Analysis Seminar Credits: 1 - 3
Interdisciplinary seminar for the Energy Analysis and Policy Curriculum. Quantitative energy content and energy flows as an aid to problem analysis and policy formulation. Prereq: Grad st & admission to Energy Anal and Policy Curric or cons inst
Typically Offered: Spring

PUB AFFR 818 Introduction to Statistical Methods for Public Policy Analysis Credits: 3
This course provides an introduction to the statistical methods used in public policy. The course will cover the basics of probability, statistics, and quantitative methods in public policy analysis. The course stresses interpretation and presentation of data as well as theory. Prereq: Grad st
Typically Offered: Occasionally

PUB AFFR 819 Advanced Statistical Methods for Public Policy Analysis Credits: 3
A review of intermediate statistics, and an introduction to analytical, quantitative and computer techniques applicable to the analysis of public policy. Prereq: Grad st & Pub Afr 818 or equiv, or cons inst
Typically Offered: Occasionally

PUB AFFR 820 Community Economic Analysis Credits: 3
Economic theory (location and growth) applicable to community economic development; the role of private and public sector in local economic development, and techniques for economic analysis of community. Prereq: Econ 301 or equiv
Typically Offered: Occasionally

PUB AFFR 827 Administrative Internship Credits: 1 - 3
Prereq: Grad st in LaFollette School & cons inst. Cr for placements in policy related positions in public & private agencies with school's Career Devel Coordinator & Assoc Dir
Typically Offered: Occasionally
PUB AFFR 830 School Finance and Resource Allocation Credits: 3
Contemporary bases for collecting and distributing local, state, and federal funds for elementary and secondary education; problems and issues in financial support of education; current, alternative and more effective uses of educational resources. Prereq: Grad standing
Typically Offered: Occasionally

PUB AFFR 850 International Governance Credits: 3
Examines influences arising from international environment on policy makers and those seeking to influence policymaking. Considers role of global economic forces, international and regional organizations, international civil society reflected in non-governmental organizations, and flow of policies across borders. Prereq: Grad st
Typically Offered: Occasionally

PUB AFFR 854 Macroeconomic Policy and International Financial Regulation Credits: 3
An introduction to international macroeconomic and financial policies with an emphasis on the interaction between domestic policies, and international financial markets, regulations and institutions. Prereq: Grad st & 1 crse in microecon & macroecon, or cons inst
Typically Offered: Occasionally

PUB AFFR 856 Trade, Competition, and Governance in a Global Economy Credits: 3
Policy oriented course in international micro-economics and trade theory; including economic and institutional analysis of U.S. trade policy and the world trading system; issues covered include regional trading average; labor standards, income distribution and the environment. Prereq: Pub Affr 818 & 880 or equiv or cons inst
Typically Offered: Occasionally

PUB AFFR 857 Political Economy of Corruption and Good Governance Credits: 3
Surveys wide range of multidisciplinary research on causes and consequences of widespread corruption and experiences of anticorruption reform strategies, with focus on developing countries. Considers role of international organizations, multinational companies, and regional agreements in building good governance globally. Prereq: Grad st or cons inst
Typically Offered: Occasionally

PUB AFFR 860 Workshop in International Public Affairs Credits: 3
Workshop in program evaluation and policy analysis taught through student teams working on real-world international issues for agencies in the public, private, and non-profit sectors. Teaches analytical skills, report preparation and writing, and presentation of results. Prereq: La Follette st & Pub Affr 850
Typically Offered: Occasionally

PUB AFFR 864 Health Policy and Policy Design Credits: 3
A survey course on health care policy in the United States, including examination of the design of health policy and the politics of health care reform. Prereq: Grad st
Typically Offered: Occasionally

PUB AFFR 866 Global Environmental Governance Credits: 3
In-depth examination of the political and policy challenges posed by global environmental degradation. Analysis of international institutions for managing the global environment. Prereq: Grad st or cons inst
Typically Offered: Occasionally

PUB AFFR 867 Government Finance in Developing Countries Credits: 3
This course explores fiscal decision-making by governments in developing countries, including decisions about the mix and level of public services, the choice of taxes and other financing mechanisms, and decisions about fiscal relationships between levels of government. Prereq: Pub Affr 880 or equiv, or cons inst
Typically Offered: Occasionally

PUB AFFR 869 Workshop in Public Affairs Credits: 3
Workshop in program and policy analysis taught through student teams working on real problems for public agencies and organizations; teaches analytical skills, report preparation and writing; and presentations of results. Prereq: La Follette st & Pub Affr 873
Typically Offered: Occasionally
PUB AFFR 871 Public Program Evaluation Credits: 3
Compares the conceptual, statistical, and ethical issues of experimental, quasi-experimental and non-experimental designs for program evaluation. Definitions of outcomes, sample size issues, statistical biases in measuring causal effects of programs, and the reliability of findings will be emphasized using case studies selected from current public programs. Prereq: Grad st & Pub Affr 818 or equiv, or cons inst
Typically Offered: Occasionally

PUB AFFR 873 Introduction to Policy Analysis Credits: 3
This course develops skills in policy analysis in two ways. First, it sets out the conceptual foundations for understanding the role of policy analysis in democratic politics. Second, it provides training and experience in policy analysis craft. Prereq: La Follette st & Pub Affr 874, or cons inst
Typically Offered: Occasionally

PUB AFFR 874 Policy-Making Process Credits: 3
An intensive study of policy-making processes involved in the formulation of public policies. Prereq: Grad st
Typically Offered: Occasionally

PUB AFFR 875 Public Personnel Administration Credits: 3
Analysis of personnel policies and practices in the public sector and examination of patterns of interaction between political executives, personnel professionals, public employees, and interest groups in the development of personnel policies. Compares problems and approaches of different countries as well as those of the various levels of government in the United States. Prereq: Grad st or cons inst
Typically Offered: Occasionally

PUB AFFR 878 Public Management Credits: 3
Role of administration in American government; problems of organization, bureaucracy and control; public policy as the output of the administrative process. Prereq: Grad standing
Typically Offered: Occasionally

PUB AFFR 880 Microeconomic Policy Analysis Credits: 3
The tools and techniques used in the economic approach to policy analysis. Emphasis is on applying these methodological tools to evaluating existing public policies and policy alternatives, as well as providing a deeper understanding of how the economy operates. Prereq: Grad st & 2 econ crs, including microeconomics
Typically Offered: Occasionally

PUB AFFR 881 Benefit-Cost Analysis Credits: 3
This course will present the welfare economics underpinnings for evaluating the social benefits and costs of government activities. Issues such as uncertainty, the social discount rate, and welfare weights will be discussed; case studies from the environmental, social policy, and agricultural areas will be studied. Prereq: Grad st, Pub Affr 818 & 880 or Pop Hlth 875 & at least one crse in econ or cons inst
Typically Offered: Fall

PUB AFFR 882 Social Welfare Policy and Management Credits: 3
Considers social welfare policies--human capital development, employment, income and family support, and health care--and addresses focal questions about the state's role in social welfare service financing and provision, targeting publicly-funded services, and efficient and effective program administration and evaluation. Prereq: Pub Affr 880 or cons inst
Typically Offered: Occasionally

PUB AFFR 883 Politics of Poverty, Inequality, and Social Policy Credits: 3
Surveys the political forces that shape poverty, inequality, and related public policies in the United States. Builds on foundational knowledge of the policy-making process to provide graduate students with skills to understand and negotiate social politics in the United States. Prereq: La Follette st or cons inst
Typically Offered: Occasionally

PUB AFFR 885 Advanced Public Management: Craft, Constraints and Accountability Credits: 3
Examines how managers in public and not-for-profit agencies can secure and utilize legal authority, human resources, and funds to accomplish organizational goals. Includes strategies for establishing and maintaining effective external relations and for working through other organizations to accomplish objectives. Prereq: Pub Affr 878
Typically Offered: Occasionally
**PUB AFFR 887 Nonprofit Leadership** Credits: 3
Nonprofit leadership focuses on developing management skills for the nonprofit area through readings, case materials and structured activities. Students examine the context, issues and skills associated with leadership and management in nonprofit organizations and apply them to challenges and opportunities that confront administration of nonprofits. Prereq: Social Work or La Follette Graduate student or consent of instructor
Typically Offered: Occasionally

**PUB AFFR 888 Comparative and National Social Policy** Credits: 3
This graduate seminar provides an overview of the American system of public policy toward human resources, with an emphasis on how the American system compares with other nations’ approaches to social welfare policy. Other nations include OECD nations as well as emerging middle income countries in Asia and Latin America. Social welfare policy is analyzed as three major branches: health, education and welfare. Prereq: Pub Affr 880 or cons inst
Typically Offered: Spring

**PUB AFFR 890 Federal Budget and Tax Policy and Administration** Credits: 3
Focuses on national budget and tax policy and administration, and the parallel processes at the state and local levels. Included are discussions of: decision-making theories; budget and tax policy; and analysis of normative and empirical criteria and analytical techniques for assessing alternative policy proposals. Prereq: Grad st or cons inst
Typically Offered: Occasionally

**PUB AFFR 891 State and Local Government Finance** Credits: 3
Explores the spending and tax policies of state and local governments. Focus on factors influencing the mix and level of public spending and the choice of revenue sources. Issues to be studied include the fiscal relations between governments and property tax. Prereq: Pub Affr 880 or cons inst
Typically Offered: Occasionally

**PUB AFFR 892 Public Budgeting** Credits: 3
Provides an understanding of budget preparation, adoption and execution; proposed reforms of the budget process; and competing theories of the politics of budgeting. Focuses on the expenditure aspect of budgeting. Prereq: La Follette grad stdt or cons inst
Typically Offered: Occasionally

**PUB AFFR 895 Performance Management** Credits: 3
Introduces students to the concept of performance management. Explores different tools that aim to raise performance. Examines recent reforms at the federal, state, and local level and alternative theories of performance. Prereq: Pub Affr 878
Typically Offered: Occasionally

**PUB AFFR 974 Topics in Public Affairs** Credits: 3
Current issues in the formulation, implementation, and analysis of public policy. Prereq: Grad st or cons inst
Typically Offered: Occasionally

**LANG & CULTURES OF ASIA - LANG**

**LCA LANG 301 First Semester Asian Language** Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

**LCA LANG 302 Second Semester Asian Language** Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

**LCA LANG 303 First Semester Burmese** Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

**LCA LANG 304 Second Semester Burmese** Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Language Level</th>
<th>Credits for LAS credit</th>
<th>Typically Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCA LANG 305</td>
<td>First Semester Filipino</td>
<td>4</td>
<td>Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Summer</td>
</tr>
<tr>
<td>LCA LANG 306</td>
<td>Second Semester Filipino</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring, Summer</td>
</tr>
<tr>
<td>LCA LANG 307</td>
<td>First Semester Hmong</td>
<td>4</td>
<td>Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Summer</td>
</tr>
<tr>
<td>LCA LANG 308</td>
<td>Second Semester Hmong</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring, Summer</td>
</tr>
<tr>
<td>LCA LANG 309</td>
<td>First Semester Indonesian</td>
<td>4</td>
<td>Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Summer</td>
</tr>
<tr>
<td>LCA LANG 310</td>
<td>Second Semester Indonesian</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring, Summer</td>
</tr>
<tr>
<td>LCA LANG 311</td>
<td>First Semester Javanese</td>
<td>4</td>
<td>Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Summer</td>
</tr>
<tr>
<td>LCA LANG 312</td>
<td>Second Semester Javanese</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Summer</td>
</tr>
<tr>
<td>LCA LANG 313</td>
<td>First Semester Khmer</td>
<td>4</td>
<td>Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Summer</td>
</tr>
<tr>
<td>LCA LANG 314</td>
<td>Second Semester Khmer</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Summer</td>
</tr>
<tr>
<td>LCA LANG 315</td>
<td>First Semester Lao</td>
<td>4</td>
<td>Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Summer</td>
</tr>
<tr>
<td>LCA LANG 316</td>
<td>Second Semester Lao</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Summer</td>
</tr>
<tr>
<td>LCA LANG 317</td>
<td>First Semester Thai</td>
<td>4</td>
<td>Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Summer</td>
</tr>
<tr>
<td>LCA LANG 318</td>
<td>Second Semester Thai</td>
<td>4</td>
<td>Continuation of first semester</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring, Summer</td>
</tr>
</tbody>
</table>
LCA LANG 319 First Semester Vietnamese Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 320 Second Semester Vietnamese Credits: 4
Continuation of first semester.  Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LCA LANG 321 First Semester Arabic Credits: 4 - 5
An important Afro-Asiatic language; description, drills, reading, speaking.  Prereq: 4 cr for Grads, 5 cr for Undergrads (4 cr only Summer). Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 322 Second Semester Arabic Credits: 4 - 5
Continuation of 321.  Prereq: African 321 or consent of instructor. 4 credits for Grads, 5 credits for Undergrads (4 cr only Summer). Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 323 Third Semester Arabic Credits: 4
Advanced grammar and conversational practice, reading contemporary Arabic literature and other writings.
Prereq: African 322 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 324 Fourth Semester Arabic Credits: 4
Continuation of 323.  Prereq: African 323 or consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 325 First Semester Malayalam Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 326 Second Semester Malayalam Credits: 4
Continuation of first semester.  Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 327 Elementary Summer Immersion Arabic Credits: 8
Elementary level Arabic language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Arabic immersion program.  Prereq: Students must be admitted to the summer Arabic immersion program in order to enroll
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 328 Elementary Summer Immersion Persian Credits: 8
Elementary level Persian language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Persian immersion program.  Prereq: Students must be admitted to the summer Persian immersion program in order to enroll
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 329 Elementary Summer Immersion Turkish Credits: 8
Elementary level Turkish language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Turkish immersion program.  Prereq: Students must be admitted to the summer Turkish immersion program in order to enroll
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 331 First Semester Kazak Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall
LCA LANG 332 Second Semester Kazak Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 333 First Semester Pashto Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 334 Second Semester Pashto Credits: 4
Continuation of first semester in the proficiency at the elementary level in listening, speaking, reading and writing,
using communicative approaches. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 335 First Semester Punjabi Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 336 Second Semester Punjabi Credits: 4
Continuation of first semester in the proficiency at the elementary level in listening, speaking, reading and writing,
using communicative approaches. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 337 First Semester Sinhala Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 338 Second Semester Sinhala Credits: 4
Continuation of first semester in the proficiency at the elementary level in listening, speaking, reading and writing,
using communicative approaches. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 339 First Semester Turkish Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Freshmen
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA LANG 340 Second Semester Turkish Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 343 First Semester Uzbek Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 344 Second Semester Uzbek Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 349 First Semester Bengali Credits: 2 - 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 350 Second Semester Bengali Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer
LCA LANG 351 First Semester Gujarati Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 352 Second Semester Gujarati Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 353 First Semester Hindi Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Summer

LCA LANG 354 Second Semester Hindi Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Spring, Summer

LCA LANG 355 First Semester Marathi Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 356 Second Semester Marathi Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 359 First Semester Nepali Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 360 Second Semester Nepali Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 361 First Semester Persian Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Freshmen
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Summer

LCA LANG 362 Second Semester Persian Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Spring, Summer

LCA LANG 363 First Semester Tamil Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 364 Second Semester Tamil Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 365 First Semester Telugu Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 366 Second Semester Telugu Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Summer

LCA LANG 367 First Semester Telugu Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Summer

LCA LANG 368 Second Semester Telugu Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Spring, Summer
LCA LANG 369 First Semester Modern Tibetan Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 370 Second Semester Modern Tibetan Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 371 First Semester Urdu Credits: 4
Proficiency at the elementary level in listening, speaking, reading and writing, using communicative approaches.
Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 372 Second Semester Urdu Credits: 4
Continuation of first semester. Prereq: 1st sem crse or equiv, determined by instr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 375 First Semester Sanskrit Credits: 3 - 4
Prereq: Open to Freshmen
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA LANG 376 Second Semester Sanskrit Credits: 3 - 4
Prereq: 1st semester course or equivalent, determined by instructor
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 401 Third Semester Asian Language Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem of appropriate language crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 402 Fourth Semester Asian Language Credits: 4
Continuation of third semester. Prereq: 3rd sem of appropriate language crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 403 Third Semester Burmese Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 404 Fourth Semester Burmese Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 405 Third Semester Filipino Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 406 Fourth Semester Filipino Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 407 Third Semester Hmong Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 408 Fourth Semester Hmong Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer
LCA LANG 409 Third Semester Indonesian Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 410 Fourth Semester Indonesian Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 411 Third Semester Javanese Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instructor
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 412 Fourth Semester Javanese Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 413 Third Semester Khmer Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 414 Fourth Semester Khmer Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 415 Third Semester Lao Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 416 Fourth Semester Lao Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 417 Third Semester Thai Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 418 Fourth Semester Thai Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 419 Third Semester Vietnamese Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 420 Fourth Semester Vietnamese Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 427 Intermediate Summer Immersion Arabic Credits: 8
Intermediate level Arabic language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Arabic immersion program. Prereq: AFRICAN 322, or AFRICAN 327, or equivalent (two semesters of Arabic language). Students must be admitted to the summer Arabic immersion program in order to enroll
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer
LCA LANG 428 Intermediate Summer Immersion Persian Credits: 8  
Intermediate level Persian language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Persian immersion program. Prereq: LCA LANG 364, or LCA LANG 328, or equivalent (two semesters of Persian language). Students must be admitted to the summer Persian immersion program in order to enroll  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 429 Intermediate Summer Immersion Turkish Credits: 8  
Intermediate level Turkish language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Turkish immersion program. Prereq: LCA LANG 340, or LCA LANG 329, or equivalent (two semesters of Turkish language). Students must be admitted to the summer Turkish immersion program in order to enroll  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 431 Third Semester Kazak Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 2nd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

LCA LANG 432 Fourth Semester Kazak Credits: 4  
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

LCA LANG 433 Third Semester Pashto Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 2nd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 434 Fourth Semester Pashto Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 3rd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 435 Third Semester Punjabi Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 2nd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 436 Fourth Semester Punjabi Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 3rd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 437 Third Semester Sinhala Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 2nd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 438 Fourth Semester Sinhala Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 3rd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

LCA LANG 439 Third Semester Turkish Credits: 4  
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.  
Prereq: 2nd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

LCA LANG 440 Fourth Semester Turkish Credits: 4  
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring
LCA LANG 443 Third Semester Uzbek Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 444 Fourth Semester Uzbek Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 445 Readings in Advanced Arabic Texts Credits: 3
Selection from Quranic and post-Quranic Arabic texts to meet the needs of the students. Prereq: Grad st and cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 446 Readings in Advanced Arabic Texts Credits: 3
Prereq: Grad st or cons inst required
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 449 Third Semester Bengali Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem of appropriate language crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 450 Fourth Semester Bengali Credits: 4
Continuation of third semester. Prereq: 3rd sem of appropriate language crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 451 Third Semester Gujarati Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem of appropriate language crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 452 Fourth Semester Gujarati Credits: 4
Continuation of third semester. Prereq: 3rd sem of appropriate language crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 453 Third Semester Hindi Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 454 Fourth Semester Hindi Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LCA LANG 459 Third Semester Marathi Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 461 Third Semester Nepali Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 462 Fourth Semester Nepali Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 463 Third Semester Persian Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer
LCA LANG 464 Fourth Semester Persian Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 467 Third Semester Telugu Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 468 Fourth Semester Telugu Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 469 Third Semester Modern Tibetan Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 470 Fourth Semester Modern Tibetan Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 471 Third Semester Urdu Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 472 Fourth Semester Urdu Credits: 4
Continuation of third semester. Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 473 Third Semester Malayalam Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 2nd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 474 Fourth Semester Malayalam Credits: 4
Proficiency at the intermediate level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 3rd sem crse or equiv, determined by instr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 475 Third Semester Sanskrit Credits: 3 - 4
Prereq: 2nd sem course or equivalent, determined by instructor
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA LANG 476 Fourth Semester Sanskrit Credits: 3 - 4
Prereq: 3rd semester course or equivalent, determined by instructor
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 501 Fifth Semester Asian Language Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem of appropriate language crse or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 503 Fifth Semester Burmese Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Summer

LCA LANG 504 Sixth Semester Burmese Credits: 3
Continuation of fifth semester. Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Summer
LCA LANG 505 Fifth Semester Filipino Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 506 Sixth Semester Filipino Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LCA LANG 507 Fifth Semester Hmong Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 508 Sixth Semester Hmong Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 509 Fifth Semester Indonesian Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 510 Sixth Semester Indonesian Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LCA LANG 513 Fifth Semester Khmer Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 514 Sixth Semester Khmer Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 515 Fifth Semester Lao Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 516 Sixth Semester Lao Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 517 Fifth Semester Thai Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 518 Sixth Semester Thai Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LCA LANG 519 Fifth Semester Vietnamese Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 520 Sixth Semester Vietnamese Credits: 3
Continuation of fifth semester.  Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer
LCA LANG 527 Advanced Summer Immersion Arabic Credits: 8
Advanced level Arabic language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Arabic immersion program. Prereq: AFRICAN 324, or AFRICAN 427, or equivalent (four semesters of Arabic language). Students must be admitted to the summer Arabic immersion program in order to enroll. A placement test may be required for admission.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 528 Advanced Summer Immersion Persian Credits: 8
Advanced level Persian language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Persian immersion program. Prereq: LCA LANG 464, or LCA LANG 428, or equivalent (four semesters of Persian language). Students must be admitted to the summer Persian immersion program in order to enroll. A placement test may be required for admission.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 529 Advanced Summer Immersion Turkish Credits: 8
Advanced level Turkish language taught in an 8-week residential summer language immersion format. Open only to students who have been admitted separately to the summer Turkish immersion program. Prereq: LCA LANG 440, or LCA LANG 429, or equivalent (four semesters of Turkish language). Students must be admitted to the summer Turkish immersion program in order to enroll. A placement test may be required for admission.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA LANG 531 Fifth Semester Kazak Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches. Prereq: 4th sem crse or equiv, determined by instr.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 532 Sixth Semester Kazak Credits: 3
Continuation of fifth semester. Prereq: 5th sem crse or equiv, determined by instr.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 539 Fifth Semester Turkish and Azeri Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches. Prereq: 4th sem crse or equiv, determined by instr.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 540 Sixth Semester Turkish and Azeri Credits: 3
Continuation of fifth semester.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 553 Fifth Semester Hindi Credits: 3 - 4
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches. Prereq: LCA LANG 454
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA LANG 554 Sixth Semester Hindi Credits: 3 - 4
Continuation of fifth semester. Prereq: LCA LANG 553
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA LANG 557 Fifth Semester Tibetan Credits: 4
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches. Prereq: 4th sem crse or equiv, determined by instr.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

LCA LANG 558 Sixth Semester Tibetan Credits: 4
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches. Prereq: 5th sem crse or equiv, determined by instr.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LCA LANG 563 Fifth Semester Persian Credits: 3
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches. Prereq: 4th sem crse or equiv, determined by instr.
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer
LCA LANG 564 Sixth Semester Persian Credits: 3
Continuation of fifth semester. Prereq: 5th sem crse or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring, Summer

LCA LANG 571 Fifth Semester Urdu Credits: 3 - 4
Proficiency at the advanced level in listening, speaking, reading and writing, using communicative approaches.
Prereq: LCA LANG 472
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA LANG 572 Sixth Semester Urdu Credits: 3 - 4
Continuation of fifth semester. Prereq: LCA LANG 571
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 601 Seventh Semester Asian Language Credits: 3
Proficiency at the advanced high level in listening, speaking, reading and writing, using communicative approaches. Prereq: 6th semester course or equivalent, determined by instructor. Open to Fr
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 602 Eighth Semester Asian Language Credits: 3
Proficiency at the advanced high level in listening, speaking, reading and writing, using communicative approaches. Prereq: 7th semester course or equivalent, determined by instructor. Open to Fr
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Summer

LCA LANG 616 Modern Thai Literature: The Novel Credits: 3
The origin and development of the novel in Thai, for advanced students. Prereq: 6th sem crse or equiv, determined by instr
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 617 Thai Poetry Credits: 3
Introduction to major earlier forms of Thai poetry. Prereq: 6th sem crse or equiv, determined by instr
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA LANG 618 Thai Prose Literature: The Short Story Credits: 3
The origins and development of the short story in modern Thai. Prereq: 6th sem crse or equiv, determined by instr
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

LCA LANG 631 Advanced Readings in Turkic Languages Credits: 3
Prereq: 6th sem of a Turkic lang crse or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 644 Readings in Otoman Turkish and Chagatay Credits: 3
Introduction to the Arabic script; grammatical features of Middle Turkic; study of texts in Ottoman Turkish, Chagatay, and later literary dialects (Arabic-script Turkish, Azeri, Uzbek, Tatar). Prereq: 6th sem of a Turkic lang or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 648 Advanced Readings in Pali Literature Credits: 3
Offers students the opportunity to read and discuss Theravada Buddhist scriptural and commentarial literature in Pali. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LCA LANG 653 Advanced Readings in Hindi Language Credits: 3
Prereq: 6th sem crse or equiv, determined by instr
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA LANG 654 Advanced Readings in Hindi Literature Credits: 3
Prereq: 6th sem crse or equiv, determined by instr
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
LCA LANG 671 Advanced Readings in Urdu Language Credits: 3
Prereq: 6th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA LANG 675 Advanced Readings in Sanskrit Credits: 3
Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA LANG 677 Advanced Readings in Tibetan Credits: 3
Readings in a wide variety of genres from various historical periods; texts include cursive manuscripts.  Prereq: 4th sem crse or equiv, determined by instr
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA LANG 800 Methods, Theories, & Professional Development in Asian Humanities Credits: 3
Examines current methods and theories in the study of Asian humanities through the creation of products commonly required in professional settings; mandatory for incoming graduate students in LCA.  Prereq: Graduate Student  Typically Offered: Fall

LANGUAGES & CULTURES OF ASIA

LCA 100 Introduction to Cultures of Asia Credits: 3
Introduction to the cultures of Central, Southwest, South, and Southeast Asia. Required core course for undergraduate majors in languages and cultures of Asia.  Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LCA 101 Introduction to Literatures of Asia Credits: 3
An introduction to the study of Asian literatures and their cultural contexts, with a focus on the analysis of literary texts in a variety of genres.  Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA 115 Environmental Humanities: Asian/Pacific Perspectives Credits: 3 - 4
Course offers a case-based approach to environmental studies from a humanistic perspective, taking into account diverse and connected transnational systems of Asia; materials draw on themes like forests, water, disaster, war, and conservation and wildlife. Course introduces disciplines in the Environmental Humanities (literature, religion, music, etc.) through studies in tradition, theory and practice across South Asia, Southeast Asia, East Asia and ocean and Pasifik regions including Aotearoa, New Zealand. Throughout the course we ask, how are environmental worldviews cast as the basis for action and understanding in the present?  Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

LCA 144 Traveling the World: South Asians in Diaspora Credits: 4
Millions of South Asians left their home in the Indian subcontinent to travel the world across the Indian Ocean to Africa, the Middle East and Southeast Asia; across the Atlantic Ocean to the Caribbean and Britain; and across the Pacific Ocean to Fiji and California. This course follows these Indian traders, political leaders, workers and pilgrims as they discovered the world beyond India. The cultural, social, economic and political experiences of these sojourners and settlers reveals an exciting transnational perspective on the history of migration, diaspora, nationalism and colonialism in India, Africa, Asia, America and Britain.  Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 205 The Making of the Islamic World: The Middle East, 500-1500 Credits: 3 - 4
Development of society and culture in the Middle East and North Africa from the emergence of Islam (7th century) to early modern times.  Prereq: Open to All Undergrads
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 206 Introduction to the Qur’an Credits: 4
An introduction to the Qur’an, the sacred scripture of the Islamic religious tradition, focused on Muslim approaches to reading the text, its themes and history, and its use as a source of law, theology, aesthetics, politics, and practices of piety.  Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
LCA 235 Genres of Asian Religious Writing Credits: 3
Writing intensive course based on the conventions in which Asian writers have expressed religious ideas. Readings introduce major Asian religious traditions and expressive genres. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr
General Education: COM B  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 236 Bascom Course Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr
General Education: COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 244 Introduction to Southeast Asia: Vietnam to the Philippines Credits: 4
Southeast Asian history, religion, folklore and literatures, educational systems, and politics from the early classical states to contemporary social, literary, and political developments. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA 246 Southeast Asian Refugees of the "Cold" War Credits: 4
In-depth study of the peoples, conflicts, and wars in Cambodia, Laos, and Vietnam, with emphasis on the Cold War era (1945-1990) and on the resulting migration and resettlement of over one million Hmong, Khmer, Lao, and Vietnamese in the United States. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 252 The Civilizations of India-Modern Period Credits: 4
Contemporary India society as a joint product of the classical heritage and world-wide movements toward nationalism; social and economic development. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 265 An Introduction to Central Asia: From the Silk Route to Afghanistan Credits: 3
Examination of human geography, ethnicity, nomadism and pastoralism, oases cultures, religion and international politics of the silk routes of central Asia. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 266 Introduction to the Middle East Credits: 3
An interdisciplinary introduction to the diverse cultures, geography, history, modern states, politics, societies, and economies of the Middle East. Since the Middle East is predominantly Muslim, there will be a special emphasis on Islam as a religion and Muslim peoples. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA 274 Religion in South Asia Credits: 3
Introductory survey of Hinduism, Buddhism, Islam, Sikhism, etc., and an examination of the cultural, historical, ritual, and philosophical foundations of South Asian religion. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 279 Introduction to Turkish Folk Literature Credits: 3
Survey of major genres of Turkish folk literature including oral epic, heroic and romance tales of minstrels, mystical love poetry, fairy tales, dervish tales, legends, riddles, proverbs, and jokes with emphasis on performance contexts and cross-cultural perspectives. Prereq: Successful completion of or exemption from Com-A requirement. Open to Fr
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 300 Topics in Languages and Cultures of Asia Credits: 3
Selected topics in the study of the languages and cultures of Asia. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LCA 308 Introduction to Buddhism Credits: 3 - 4
The basic thought, practices and history of Buddhism, including selflessness and relativity, practices of meditation, merit-making and compassion from both local and translocal perspectives. Includes a discussion of Buddhism as a contemporary, North American religion. Prereq: Open to Freshmen
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA 311 Modern Indian Literatures Credits: 3
Introduction to advanced study of modern literatures of India in translation from several languages. Emphasizes literary and critical analysis of short story, novel, poetry, and drama; historical and cultural contexts of literature; and relations and dynamics of multiple literary cultures. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA 314 Literatures of Central Asia Credits: 3
Critical survey of the development of medieval and modern literatures of the peoples of Central Asia from pre-Islamic times to the present with selected readings in English translation. Prereq: LCA undergrad major or Grad st
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA 348 In Translation: Modern Indian Theatre Credits: 3
Study of drama, dramatic theory, and performance in modern India. Course considers interpenetration of Indian and Western systems of dramaturgy, relation between colonial and postcolonial institutions, socio-cultural and political contexts, and major modern dramatic genres. Prereq: Junior standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA 355 Hinduism Credits: 4
An historical survey of Hindu scriptures, rituals, philosophies, and ethics from the ancient to the contemporary world. Concepts such as karma, yoga, and reincarnation will be put in the broader contexts of Hindu theism, worship, and law. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA 356 Islam, Science & Technology, and the Environment Credits: 3 - 4
Survey of Muslim religious understandings of science, technology, nature and environment. Lectures and readings present a global perspective through case studies, covering sources such as the Qur'an, theology and law, and traditions of esoteric piety (mysticism), and historical and contemporary issues like medical ethics, virtual realities, and environmental change, challenge and crisis. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

LCA 357 Literatures of Muslim Societies Credits: 3
Survey in English of the literatures of the Islamic Middle East and South West Asia in Turkish, Persian and Arabic. Emphasis on comparative approaches within an Islamic cultural continuum and reactions to this heritage in the modern and post-modern periods. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA 361 Survey of Indonesian Cultures Credits: 3
Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA 367 Jainism: Religion of Non-Violence Credits: 3
An examination of the theological, ritual, and social frameworks of the Jain tradition; explores the moral and physical implications of asceticism and non-violence from a Jain perspective through a study of sacred texts and contemporary practice. Prereq: Open to Freshmen
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LCA 370 Islam: Religion and Culture Credits: 3 - 4
The emergence and development of Islam; schism; theology; asceticism; speculative and popular mysticism; literatures in diverse Islamic languages. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LCA 373 Urdu Prose Fiction in India and Pakistan Credits: 3
Major trends in Urdu fiction since 1880 in Urdu and secondarily in English. Prereq: LCA major, Gad st, or cons inst. Other undergrads register for Littrans 273
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
LCA 374 Indian Folklore  Credits: 3
An introduction to Indian folklore; with all its traditions and genres; folktales, folksongs, myths, rituals, as well as literary sources like the epics. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 379 Cities of Asia  Credits: 3
Historical overview of the built environment of cities of Asia from antiquity to the present; architectural and urban legacy in its social and historical context; exploration of common themes that thread through the diverse geographical regions and cultures of Asia. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 401 Modern Indonesian Literature  Credits: 3
Representative novels, short stories and essays from early 20th century to the present are placed in the literary and cultural context of Indonesia. Prereq: LCA major, Grad st, or cons inst. Other undergrads register for Littrans 301
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 402 Thought of Gandhi  Credits: 3
Critical analysis of Gandhi’s social, political, and religious thought, tracing his experiences in South Africa and India, noting links between his concepts and classical Hinduism, examining criticisms raised against Gandhi’s thought, and identifying contemporary continuities of Gandhi’s thought in India, Europe, and the U.S. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 403 Southeast Asian Literature  Credits: 3
An introduction to the cultures and societies of Southeast Asia through modern prose literature. The first semester focuses on the mainland, the second semester focuses on the islands. The two semesters may be taken independently. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 404 Southeast Asian Literature  Credits: 3
An introduction to the cultures and societies of Southeast Asia through modern prose literature. The first semester focuses on the mainland, the second semester focuses on the islands. The two semesters may be taken independently. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 421 A Survey of Tibetan Buddhism  Credits: 3
By studying the distinctively Tibetan forms of Buddhism, we also examine more general issues, such as the relationship between theory and practice, the politics of “world-making”, and the connection between identity and experience. Prereq: So st or cons inst; prev study of Buddhism strongly recommended
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 428 Visual Cultures of South Asia  Credits: 3
Concentrates on image complexes (art, photography, and cinema) and visual environments (architecture, urban planning, and public rituals) of South Asia; examination of visual culture through thematic issues such as sexuality, patronage, cultural encounter, transculturation, ways of viewing, modernism, and nationalism. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 430 Language and Culture  Credits: 3 - 4
The relationship of language as a communication system to the culture transmitted by it. Principle problems in the interrelations of language and nonlinguistic human behavior. Prereq: So st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA 438 Buddhism and Society in Southeast Asian History  Credits: 3 - 4
Therevada Buddhism in Southeast Asia; ideas and basic tenets; history and its impact on social and political institutions; the monastic order and relations with the states; roles in the early history up to the present; focus on Thailand and Burma. Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
LCA 441 Language and Society in Southeast Asia Credits: 3
Languages of Southeast Asia are explored from historical, linguistic, anthropological and literary perspectives. The roles of majority and minority languages as well as national and international languages are investigated. Prereq: So st or cons inst L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 444 Introduction to Sufism (Islamic Mysticism) Credits: 3
The rise and development of mysticism in Islam; basic Sufi doctrines, values and practices; life and works of important speculative and popular Sufi saints; Sufi brotherhoods in the Middle East, South Asia and North Africa. Prereq: So st & LCA/Hist/Relig St 205, Littrans 217, Relig St 271, LCA/African/Relig St 370, or cons inst L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 450 Making of Modern South Asia Credits: 3 - 4
Everything you ever hear about South Asia is true. But the exact opposite is also true. Tradition and modernity, development and stagnation, the past and the future all exist simultaneously, at times in harmony and at other times in conflict with one another. Through an exploration of the political, social and economic history of this region from the 18th century to the present day, students will learn about the making of modern South Asia and attempt to understand this paradox. Prereq: Sophomore standing L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LCA 457 History of Southeast Asia to 1800 Credits: 3 - 4
Formation and development of classical Indian and Chinese influenced societies in the area comprising present-day Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and the Philippines, and their meeting with Islam and the early Europeans. Prereq: Jr st or cons inst L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LCA 458 History of Southeast Asia Since 1800 Credits: 3 - 4
Effects of the modern Western revolution on the established societies of Southeast Asia through colonial rule and economic and cultural change. Prereq: Jr st or cons inst L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LCA 462 Anthropology of South Asia Credits: 3
Examines dominant intellectual paradigms informing anthropology of South Asia. Topics include debates on caste, kinship, socialization, religions, applied anthropology. Primary focus India but students may write research paper on any South Asian country. Prereq: Jr st or cons inst L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA 466 Buddhist Thought Credits: 3
Survey of the fundamental trends in Buddhist thought through the works of major philosophers. Themes include the concept of "selflessness" and concomitant theories of essencelessness, perception, language and rationality. Previous study of Buddhism or philosophy is strongly recommended. Prereq: So st or cons inst. Prev study of Buddhism or philos strongly recommended. L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 472 Women in Turkish Society Credits: 3
Interdisciplinary analysis of women's issues in Turkish society from the Ottoman era imperial harem to Islamist feminist movements in the secular Republic of Turkey today. Emphasis on the critical use of a comprehensive set of disciplinary lenses. Prereq: So st or cons inst L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LCA 478 Indian Writers Abroad: Literature, Diaspora and Globalization Credits: 3
Study of literature, drama, and film produced by authors of South Asian origin in Europe, North America, and the Caribbean. Course considers theories of diaspora, changing patterns of subcontinental migration, and relation of diasporic forms to the cultures of origin and adoption. Students who have taken English 524 prior to fall 2014 may not enroll in this course. Prereq: 6 credits of literature L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
LCA 547 Religion, Colonialism & Modernity in Southeast Asia Credits: 3
Examines changes in Southeast Asian religions (Buddhism, Confucianism, Islam) and experiences of modernity during the colonial period. Focus on religious and literary expressions from Thailand, Cambodia, Vietnam and Indonesia. Prereq:
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 568 Study Abroad in Religions and Philosophies Credits: 2 - 6
Study of religions and philosophies offered by a UW-approved study-abroad program outside the United States. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LCA 579 Fiction and Ethnography in Turkey Credits: 3
Critical survey of fiction and ethnography as part of a discourse of interacting genres informed by competing social scientific paradigms and political ideologies. Examines use of Turkish literature as cultural informant but student papers may treat literatures in other languages. Prereq: Jr st
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 600 Capstone Seminar in Asian Humanities Credits: 3
An examination of methodological and theoretical issues in Asian humanities, with emphasis on literary, religious, and cultural studies. Prereq: Jr st; LCA major
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 610 Proseminar: Introduction to Turkic Linguistics Credits: 3
Intensive introduction to Turkic philology and the major problems in the diachronic and synchronic study of the Turkic languages; reference tools; and analysis of texts in a number of languages. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 614 Social Structures of Muslim Societies Credits: 3
Analysis of legal, religious, familial, educational, and political institutions in Muslim societies, with special attention to the interaction between these institutions and contemporary social and economic processes. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 615 Writing Travels Credits: 3
This Global Cultures capstone seminar provides students returning from travel or study abroad an opportunity to employ (or transgress) the literary conventions of travel writing as they structure their own experience of global cultures through the act of writing. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 620 Proseminar: Studies in Religions of Asia Credits: 3
Historical and structural analysis and discussion of specific topics in one or more religions of Asia. Prereq: So st or LCA/Relig St 273 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 621 Mapping, Making, and Representing Colonial Spaces Credits: 3
Spatial legacy of colonialism; explores important ways in which the population, landscape, architecture, and urban environment of colonies were mapped, made, and represented, particularly in the 19th and 20th centuries; theoretical and empirical analyses from diverse disciplines and spatial terrain. Prereq: Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LCA 623 Yoga: Methods and Goals Credits: 3
Explores Yoga techniques propagated in the ancient Indian texts, as well as their adaptations in the Western world. Prereq: So st & one crse in S Asian religions or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 624 Meditation in Indian Buddhism and Hinduism Credits: 3
Examines contemplative practices in the two major Indian religions, Buddhism and Hinduism. Covers practices described in ancient texts but also provides an overview of selected modern practices. Prereq: So st & one crse in S Asian religions or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LCA 626 Gods and Goddesses of South Asia Credits: 3
Explores the deities of South Asia by examining the development of iconographic concepts and devotional practices associated with the worship of deities. Prereq: So st & one crse in S Asian religions or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 628 Hindu Law Credits: 3
An examination of the nature, history, institutions, and thought of the Hindu legal tradition from its origins ca. 200BCE to the present. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 630 Proseminar: Studies in Cultures of Asia Credits: 3
Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 634 Social Structure of India Credits: 3
Analysis of the major institutions of India with special attention to the relationship between Hindu community organization, caste and the family; the effects of political developments, population growth, industrialization, and urbanization. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 640 Proseminar in Central Asian History Credits: 3
Introduction to the historiography of the Golden Horde and the Tatar, Kazak, and Uzbek nations; impact on Russia; Russian colonialism in Central Asia; innovative approaches to social and economic history. Prereq: Jr st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 650 Proseminar in Buddhist Thought Credits: 2 - 3
Advanced topics in Buddhist thought. Prereq: Jr st or cons inst. 1 crse in Buddhism strongly recommended
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 651 Politics of South Asia Credits: 3 - 4
Introduces students to the history and politics of the region with a special focus on India, Pakistan, and Sri Lanka and the regional and international contexts of South Asia. Prereq: Jr st; Poli Sci 106 or 186; or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LCA 663 South Asia and the Global System: Economy, Security & Culture Credits: 3 - 4
Examines the effect of international forces on some countries of the South Asia region (India, Pakistan, Sri Lanka, and Afghanistan) as well as how state and societal responses affect the prospects of security, prosperity, and cultural integration in the world. Prereq: Poli Sci 106
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LCA 666 Proseminar: Studies in Literatures of Asia Credits: 3
Topics will vary. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 671 Structure of Thai Credits: 3
Linguistic introduction to Thai. Prior study of linguistics not required. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LCA 681 Senior Honors Thesis Credits: 3
Individual study and research for honors candidates. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 682 Senior Honors Thesis Credits: 3
Continuation of 681. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 691 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LCA 692 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a lettered basis: requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LCA 706 Seminar: Topics in the History of Buddhism Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

LCA 717 Seminar on Religion and Society in South Asia Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

LCA 799 Independent Study Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Occasionally

LCA 802 Seminar: Topics in Religions of Asia Credits: 3
Topics in comparative and connected histories of religion in Asia; major thinkers and movements; theoretical and methodological issues; and/or specialized subjects in religious studies. Prereq: Grad st
Typically Offered: Fall, Spring

LCA 815 Seminar: Interdisciplinary Approaches to Asia Credits: 3
An overview of current research being done on Asia in a variety of different disciplines. Prereq: Grad st
Typically Offered: Occasionally

LCA 850 Seminar in Turkic Studies Credits: 3
Philological study and interdisciplinary analysis of sources written in modern and classical Turkic languages. Prereq: Grad st. May not be taken concurrently with LCA Lang 631
Typically Offered: Occasionally

LCA 851 Seminar on Ottoman and Middle East History Credits: 1 - 3
Concepts applicable to the study of social, economic and institutional movements and developments in the area within a broad historical framework. Prereq: Grad st & cons inst
Typically Offered: Occasionally

LCA 857 Seminar-History of India (South Asia) Credits: 1 - 3
Emphasis upon handling of research problems. Focus upon methods, resources, intellectual approaches, and changing interpretations. Prereq: Grad st and cons inst. Appropriate language(s).
Typically Offered: Occasionally

LCA 873 Seminar in Languages and Literatures of South Asia Credits: 3
Topics in South Asian languages and literatures. Prereq: Grad st
Typically Offered: Occasionally

LCA 990 Research and Thesis Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Occasionally

LCA 999 Individual Research Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

LATIN (CLASSICS)

LATIN 103 Elementary Latin Credits: 4
Forms and syntax, with simple translation, equiv to a year of high school Latin. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall
LATIN 104 Elementary Latin Credits: 4
Translation of easy prose; analysis of English derivatives. Prereq: Latin 103. Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LATIN 203 Intermediate Latin Credits: 4
Brief review of Latin grammar and vocabulary. Extensive reading from several authors. Prereq: Latin 104 or appropriate placement score. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LATIN 204 Introduction to Latin Literature Credits: 4
Close literary analysis of the structure, style, and language of several Roman poets and prose writers. A critical rather than a purely historical approach to these authors. Prereq: Latin 203. Open to Freshmen
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LATIN 301 Latin Literature of the Roman Republic Credits: 3
Writers of the Republic studied in a historical and cultural context. Prereq: Latin 204 or appropriate placement score
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LATIN 302 Latin Literature of the Roman Empire Credits: 3
Writers of the Augustan period and the Empire studied in a historical and cultural context. Prereq: Latin 301 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LATIN 391 Latin for Graduate Reading Knowledge I Credits: 3
Intensive grammar and reading course for graduate students. Prereq: Grad st or cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LATIN 392 Latin for Graduate Reading Knowledge II Credits: 3
Continuation of Latin 391. Prereq: Latin 391 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LATIN 505 Elementary Prose Composition Credits: 3
Survey of Latin syntax and idioms. Prereq: Latin 301 and 302 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 515 Vergil Credits: 3
Prereq: Latin 301 and 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 519 Latin Poetry Credits: 3
Latin poetry of the Republic and/or Empire. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 520 Roman Drama Credits: 3
Prereq: Latin 301 and 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 521 Roman Elegy Credits: 3
One or a combination of: Catullus, Tibullus, Propertius, Ovid, later elegiac poets. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 522 Roman Lyric Poetry Credits: 3
Roman lyric poetry of one or a combination of the following: Horace, Statius, later lyric poets. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 523 Roman Satire Credits: 3
One or a combination of: fragments of Lucilius; Horace; Persius, Juvenal; later satire poets. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
LATIN 524 Roman Novel Credits: 3
One or a combination of: Petronius, Cena Trimalchionis, Satyricon; Apuleius, Cupid and Psyche, Metamorphoses; other Roman novels. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 539 Latin Historical Writers Credits: 3
One of the following: (a) Cicero, Epistles, (b) Pliny, Epistles, (c) Caesar, (d) Sallust, (e) Livy, (f) post Augustan historians, (g) historians of the late Empire. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 549 Latin Philosophical Writers Credits: 3
One of the following: (a) Cicero's philosophical works, (b) Seneca, (c) Latin patristic writers. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 559 Latin Oratory Credits: 3
One of the following: (a) Cicero, Orations, (b) Roman rhetoric. Prereq: Latin 302 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 563 Mediaeval Latin Credits: 3
Prereq: Latin 204 or appropriate placement score
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LATIN 681 Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LATIN 682 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LATIN 691 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LATIN 692 Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LATIN 699 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LATIN 801 Graduate Survey Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

LATIN 890 Individual Research Thesis Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

LATIN 910 Seminar-Poetry Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

LATIN 930 Seminar-Roman History Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

LATIN 940 Seminar-Philosophy Credits: 3
Prereq: Grad st
Typically Offered: Occasionally
**LATIN AMER, CARIB & IBERIAN ST**

**LACIS 260 Latin America: An Introduction** Credits: 3 - 4
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**LACIS 361 Elementary Quechua** Credits: 4
Phonology and morphology; concentration on the acquisition of conversational skills; reading of texts of graded difficulty; three hours classroom and one hour lab.  Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

**LACIS 362 Elementary Quechua** Credits: 4
Continuation of 361.  Prereq: Anthro 361 or cons inst. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

**LACIS 363 Intermediate Quechua** Credits: 4
Advanced morphology and syntax; advanced conversation and composition; cultural background of Quechua speaking peoples through reading of myths, legends and folktales.  Prereq: Anthro 362 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**LACIS 364 Advanced Quechua** Credits: 4
Continuation of advanced conversation and composition; cultural background of Quechua-speaking peoples through reading of myths, legends, folktales; problems in dialectology.  Prereq: Anthro 363 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**LACIS 376 First Semester Yucatec Maya** Credits: 4
Introduction to Yucatec Maya language. Focus on acquiring vocabulary and grammar for basic conversational proficiency. Taught through in-class oral and aural exercises, language tapes, and primary texts. Students also learn about Maya culture, history, folklore, and language politics.  Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**LACIS 377 Second Semester Yucatec Maya** Credits: 4
Continued introduction to Yucatec Maya language. Focus on acquiring vocabulary and grammar for basic conversational proficiency. Taught through in-class oral and aural exercises, language tapes, and primary texts. Students also learn about Maya culture, history, folklore, and language politics.  Prereq: Anthro 376. Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**LACIS 440 Topics in Latin American, Caribbean, and Iberian Studies** Credits: 1 - 4
An examination of specific topics related to the Latin American, Caribbean, and Iberian region. Topics vary each semester, but may include specific themes in history, literature, media, political science, sociology, culture, politics, social work, and agriculture.  Prereq: Jr st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**LACIS 681 Senior Honors Thesis** Credits: 3
Individual study and research for majors writing theses for honors degree.  Prereq: Senior majors writing honors thesis & consent of instuctor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**LACIS 682 Senior Honors Thesis** Credits: 3
Individual study and research for majors writing theses for honors degree.  Prereq: LACIS 681. Sr majors writing honors thesis & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
LACIS 698 Directed Study Credits: 1 - 6
An independent studies course to allow students at an advanced level to pursue individual projects. Prereq: Jr or Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LACIS 699 Directed Study Credits: 1 - 6
An independent studies course to allow students at an advanced level to pursue individual projects. Prereq: Jr or Sr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LACIS 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

LEGAL STUDIES

LEGAL ST 131 Criminal Justice in America Credits: 3 - 4
Day-to-day functioning of the elements of the criminal justice system in the U.S. Nature of crime in the U.S., ideas about causes and solutions. Emphasis on the sociology of the components of criminal justice system--organization and roles of police, lawyers, court and correctional personnel. Prereq: Open to Fr & So only, until end of Fr reg period. Sttms may receive cr for only one of the following: Soc 131 or 431
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LEGAL ST 217 Law, Politics and Society Credits: 3 - 4
Introduction to the legal process. Examination of the various concepts of law, the perennial problems of the law, legal reasoning, and the nature and function of law and the courts. Prereq: Fr & So only
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LEGAL ST 261 American Legal History to 1860 Credits: 3
This course surveys the development of American law down to the U.S. Civil War. After a review of the English historical background, it examines how law changed in colonial America, culminating in the framing of the U.S. Constitution. It then explores how territorial expansion, democracy, and slavery shaped nineteenth-century American law. Emphasis is on how law interacts with political, social, and cultural change, with a focus on the origins of modern civil and constitutional rights. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

LEGAL ST 262 American Legal History, 1860 to the Present Credits: 3
This course surveys the development of American law from the Civil War to the early Twenty-First Century. After a review of the U.S. Constitution and its modification by the Civil War amendments, it examines the legal dimensions of such topics as race relations and the Civil Rights movement, the growth of modern business, the New Deal, labor rights, the women's movement, the individual rights revolution of the postwar period, and the contemporary conservative reaction. Emphasis is on how law interacts with political, social, and cultural change. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

LEGAL ST 400 Topics in Legal Studies and the Social Sciences Credits: 3 - 4
This course can be repeated by students, but not with the same content. Prereq: Jr st; prerequisite may vary with topic
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LEGAL ST 405 Foundations of Field Education Credits: 2
This course is designed as a preparatory course for an advanced learning opportunity via an extensive, hands-on internship at a community criminal or juvenile justice agency. Prereq: Students must be declared in the Criminal Justice Certificate and have completed or be currently enrolled in a course from groups 1-3 of the certificate curriculum
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
LEGAL ST 409 Human Rights in Law and Society Credits: 3
Introduction to the theory, the politics and the sociology of human rights. Main themes: international human rights legal regime, questions of why human rights have become "legalized," and what the consequences of this legalization are on the ground. Prereq: Legal St/Soc 131 or Legal St/Poli Sci 217., Jr st or inst cons
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 415 The Legal Profession Credits: 3 - 4
History, structure, and functioning of legal professions in the United States and in other countries around the world. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LEGAL ST 422 Women and the Law Credits: 3
Legal system, laws, and proposed legislation that have specific impact on the lives of women. Topics investigated in both the social and legal contexts. Prereq: A woman-related course and a soc sci course; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LEGAL ST 426 The History of Punishment Credits: 3 - 4
This course examines punishment across a vast range of historical traditions, examining how wrongdoing and punishment have been figured in law, literature, art and philosophy. Through the semester we will examine ancient, medieval and modern traditions. Prereq: Junior or Senior standing or consent of instructor
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 430 Law and Environment: Rights and Resources Credits: 3
This class explores the burgeoning field of environmental studies through a focus on the historical development of legal rights in land and natural resources. It examines rights in natural resources in pre-modern European and non-Western traditions, traces the development of modern Anglo-American and selected global approaches to environmental law and governance, and considers the recent development of international environmental law. Prereq: Sophomore standing
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 444 Law in Action Credits: 3
A review of the interaction of law (judicial decisions, legislation, administrative actions) with public policy by studying the approaches used to resolve a number of significant issues by use of law and examining the actual impact of such efforts. Prereq: So st
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 450 Topics in Legal Studies and the Humanities Credits: 3 - 4
Topics courses will address a variety of issues linking various humanities perspectives to the central themes of law and legal institutions. This course may be repeated by studens, but not with the same content. Prereq: Jr st; prerequisite may vary with topic
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LEGAL ST 459 Rule of Law: Philosophical and Historical Models Credits: 3 - 4
From the perspectives of history and political theory, this course examines the multiple meanings of the idea of the rule of idea, and its uses in American history. We then explore prominent critiques of the rule of law ideal. Prereq: A prev law-related crse
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LEGAL ST 460 Surveillance, Privacy, and Police Powers Credits: 3
Examines individual privacy and government information collection in law enforcement, security, public health, administrative law, and other contexts from a variety of disciplinary perspectives. Prereq: Junior standing or permission of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LEGAL ST 476 Medieval Law and Society Credits: 3
The course is intended to introduce students to the central historical developments of law and legal institutions in the European middle ages (400-1500). Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
LEGAL ST 502 Law and Colonialism Credits: 3
Historical introduction to the role of law in the context of empire, with special emphasis on 19th-20th C British imperialism; explores themes of class, race and gender through fields of law including criminal, property, family, contract and labor law. Prereq: Previous law-related course
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 510 Legal Pluralism Credits: 3
Historical and anthropological perspectives on non-state "law," or systems of rules generated by normative orders that lay beyond the state; case studies include the mafia, Tokyo tuna traders’ court, orthodox Jewish diamond merchants, California gold miners’ courts, Inuit song dueling. Prereq: Previous law-related course
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 600 Special Topics in Legal Studies Credits: 1 - 3
Special seminars are designed for opportunities such as short international seminar courses, the summer forum, and other social opportunities. Prereq: Prereq varies by topic
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LEGAL ST 628 Hindu Law Credits: 3
An examination of the nature, history, institutions, and thought of the Hindu legal tradition from its origins ca. 200BCE to the present. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LEGAL ST 641 Sociology of Law Credits: 3 - 4
Theory and research on the social origins, processes and effects of law; examination of law-related behavior, legal institutions, law and social structure, and law and social change; linkage to contemporary theoretical and political debates. Prereq: Junior standing and Soc 441 or Soc 475, or Law student
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LEGAL ST 645 Intellectual Freedom Credits: 3
An examination of intellectual freedom in the United States including censorship, minors’ rights, the Internet, privacy, and copyright with focus on theoretical questions related to the First Amendment to the U.S. Constitution, and historical developments. Prereq: Junior Standing; or Graduate Standig in SLIS
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LEGAL ST 650 Advanced Seminar in Legal Studies Credits: 2 - 3
A topics seminar typically taught by a member of the Law School faculty. The course may be taught on a "meets with" basis with a Law School topics course or seminar. Prereq: Legal studies major; Sr st; cons inst may be required
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LEGAL ST 663 Introduction to Cyberlaw Credits: 3
This is an introductory course in the law of cyberspace. The emphasis is on critical thinking about a broad variety of legal and policy problems that arise because of ever-changing information and communication technologies. Prereq: Jr st & cons inst, or Grad st in SLIS
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LEGAL ST 681 Senior Honors Thesis Credits: 3 - 4
Individual study for majors writing theses for honors degree. Prereq: Sr st, legal studies major, admission to Honors Progm, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LEGAL ST 682 Senior Honors Thesis Credits: 3 - 4
Individual study for majors writing theses for honors degree. Prereq: Sr st, legal studies major, admission to Honors Progm, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LEGAL ST 691 Senior Thesis Credits: 3
Individual study for majors writing senior thesis (nonhonors). Prereq: Legal studies major, Sr st, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LEGAL ST 692 Senior Thesis Credits: 3
Individual study for majors writing senior thesis (nonhonors). Prereq: Legal studies major, Sr st, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
LEGAL ST 694 Criminal Justice Field Observation Credits: 2 - 3
Field placements and seminar sessions to develop sociological understanding of criminal justice processes. Placement in criminal justice agencies and lectures and discussions applying concepts and theories to field experience. Prereq: Soc 131 and Criminal Justice Certificate declaration
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

LEGAL ST 699 Directed Study Credits: 1 - 4
Directed study in legal studies. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LIBRARY & INFORMATION STUDIES

L I S 201 The Information Society Credits: 4
Examines important social, legal, and historical contexts of information and information technologies, and explores significant social, legal, and moral questions that surround those technologies. Prereq: Satisfied Communications A requirement
General Education: COM B  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

L I S 202 Informational Divides and Differences in a Multicultural Society Credits: 3
Explores the impact of and barriers to access to information on the lives of low-income ethnic/racial minority communities in the United States. Provides introduction to contemporary information society from a sociological perspective. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

L I S 301 Information Literacies in Online Spaces Credits: 3
Explores information and digital literacies needed by today's online consumers and producers. Covers skills and topics related to access (digital divides, power relations in online communities, regulation), analysis (assessing credibility, evaluating risks, analyzing representation) and production (blogging, videosharing, gaming). Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

L I S 319 Scandinavian Children's Literature Credits: 3 - 4
Forms and themes of Scandinavian children's literature from the nineteenth century to the present. Exploration of the dominant concerns of authors, adult and non-adult audiences. Film adaptations and Scandinavian-American materials included. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

L I S 340 Topics in Information Studies - Social Aspects Credits: 3
Exploration of contemporary issues related to information in society. Subject will vary. Examples include, but not restricted to: Information Ethics, Digital and Print Culture, Global Information Flows. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

L I S 341 Topics in Information Studies - Technological Aspects Credits: 1 - 3
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

L I S 350 History and Future of Books Credits: 3
This course is framed by a question about what books are, what books have been, and what books might be: past, present, and future. The course also assumes that "book" is a capacious term, or a placeholder one, for an object that becomes the site of questions and debates about a variety of media, expressions, and recording practices. We live in a moment of rapid media evolution, and yet we have seen the book endure and change as a form. Academic fields including book history, digital humanities, media studies, and human computer interaction (to name only a few) all have something at stake in the form of the book - not to mention industry-oriented interests in e-readers, book retail, publish
General Education: COM B  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
L I S 351 Introduction to Digital Information Credits: 3
This entry level course prepares students to use information technologies to solve problems and help people through implementing information infrastructures such as websites, databases and metadata. Students will explore information access, information representation, usability and information policy issues, and increase their understanding of the social impacts and social shaping of information infrastructures. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

L I S 399 Independent Reading and Research Credits: 1 - 4
Concentrated work on a subject or problem of the student's need or interest; students must submit a written report, paper, or other product covering the work accomplished. Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

L I S 460 Surveillance, Privacy, and Police Powers Credits: 3
Examines individual privacy and government information collection in law enforcement, security, public health, administrative law, and other contexts from a variety of disciplinary perspectives. Prereq: Junior standing or permission of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

L I S 490 Field Methods and the Public Presentation of Folklore Credits: 3
The course combines a fieldwork practicum with scrutiny of the cultural, political, and ethical dimensions underlying the documentation and public presentation of folklore through festivals, exhibitions, publications, and audio-visual productions. Prereq: Sr st, two crses in folklore or cultural anthro or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

L I S 500 Code and Power Credits: 3
Prepares students to analyze and critique the portrayal of race, gender and computing in various media outlets and to consider their own potential as contributors to the computing industries in light of media portrayals and their own self-perceptions. As students confront assumptions about gender race and computing, this course will also equip them with the skills necessary to confidently design, develop, and discuss web scripting aspects related to HTML/CSS/PHP website development. Prereq: Junior standing
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

L I S 517 Digital Health: Information and Technologies Supporting Consumers and Patients Credits: 3
This course is appropriate for undergraduate or graduate students considering careers in the health or allied health professions, service professions, and the social services, particularly those concerned with the medically under served and members of racial/ethnic/socioeconomic minority groups. This course covers topics within the US context including: the identification of appropriate and accurate materials for consumer health and family education; the ethical and organizational policy issues that arise when providing consumer and family health information in different settings; the role of the public media in disseminating health information; the health-related information needs and prefe
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

L I S 569 History of American Librarianship Credits: 3
Development of American librarianship from Colonial times to the present, with special reference to the relationship of library institutions to their contemporary social, economic, cultural and political environments. Prereq: Jr st; or Grad st in SLIS
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

L I S 601 Information: Perspectives and Contexts Credits: 3
Provides an introduction to major themes and topics in information studies as well as the language and literature of the field and related disciplines. This course is about information, information agencies, and being an information professional. We look at social, historical, ethical, legal and political issues surrounding information dissemination, use, control, and management. Prereq: Graduate standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LIS 602 Information: Organization and Search Credits: 3
This course introduces basic concepts and principles of information organization and online searching. Students gain knowledge of information organization and retrieval theories and methods and knowledge of large database structures and database searching techniques. Students critically examine the impact of information organization practices on organizations and culture. Through readings, lectures, discussions, and exercises, students will learn how to develop information organizing systems and to evaluate and improve search systems. Prereq: Declared in Library and Information Studies graduate program
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LIS 603 Research and Assessment for Information Professionals Credits: 3
Introduces students to research, evaluation and assessment practices. Prepares students to design and implement a research or assessment project. Provides an overview of commonly employed data collection methodologies and introduces students to both qualitative and quantitative analysis approaches that may be employed in evaluation, assessment and research. Prereq: Declared in a SLIS graduate program
Typically Offered: Occasionally

LIS 616 Records Management Credits: 1 - 3
An introduction to the role of records in society and to the principles and practices involved in managing records (both paper and electronic) in private and public sector organizations. Grad st in SLIS or cons inst
Typically Offered: Occasionally

LIS 617 Health Information Systems Credits: 3
Provides grounding in core concepts of health information systems. Major applications include clinical information systems, language and standards, decision support, image technology and digital libraries. Evaluation of IE tools and perspectives designed to improve the quality, efficiency and effectiveness of health information. Prereq: I SY E 417
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 619 Music Research Methods and Materials Credits: 3
Historical and contemporary bibliography resources for musical scholarship; general reference tools of scholarly work and specific musicological works. Prereq: Grad st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LIS 620 Field Project in Library and Information Agencies Credits: 3
Analysis of field experience through seminars, individual conferences, required reading and consultations with cooperating librarians and information specialists. Enrollment limited. Prereq: LIS 450, 451 & 551; electives appropriate to the proposed project; & cons inst
Typically Offered: Occasionally

LIS 622 Childrens Literature Credits: 3
Traditional sources to the present; criticism and evaluation; contemporary trends and issues. Techniques of reading guidance in school or public library in relationship to developmental interests, needs and skills of children. Prereq: Jr st & cons inst; or Grad st in SLIS
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 624 Story Telling and Oral Literature Credits: 3
The oral tradition in world literature for children. Techniques of interpretation through story telling; development of story telling programs in library, school and community. Prereq: Jr st & cons inst; or Grad st in SLIS
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 629 Multicultural Literature for Children and Young Adults Credits: 3
Focus on literature written or illustrated by U.S. citizens or residents which depicts people of color both within and outside the U.S. Emphasis on literature of past fifteen years with comparison to earlier literature. Publishing trends.
Ethnic Studies: Yes  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 631 Young Adult Literature Credits: 3
Survey of background and current media interests and needs of young adults, with emphasis on reading interests. Critical examination of media trends, materials, selection criteria, guiding the individual user, censorship problems, as they relate to the young adult. Prereq: Jr st & cons inst; or Grad st in SLIS
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LIS 635 Reference and Information Service Credits: 3
Theories, principles and practices in selected aspects of reference and information services. Prereq: LIS 450 & 451 or con reg or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 639 Pedagogical Theory and Practice for Information Professionals Credits: 3
Introduction to pedagogical theory, training tools, and teaching skills needed in a variety of informational instructional settings such as academic and public libraries, archival institutions, museums, and software training facilities. Applicable for students interested in information literacy instruction, online teaching, technology training, and group instruction. Prereq: Graduate standing in SLIS or consent of instructor
Typically Offered: Occasionally

LIS 640 Topics in Library and Information Studies Credits: 1 - 3
Current issues in library and information studies that are not addressed in sufficient depth in existing courses or that combine facets of several existing courses. Prereq: Jr st & cons inst; or Grad st in SLIS
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 641 The School Library/Media Center Credits: 3
Its function in the educational program; the management, organization, and development of its media resources and services. Prereq: LIS 450 & 451 or con reg or cons inst
Typically Offered: Occasionally

LIS 642 Reading Interests of Adults Credits: 3
An examination of the nature and societal functions of a variety of mass media-generated adult reading materials, the standards by which they are judged, and their relationship to contemporary library and information science fields. Prereq: Junior Standing; or Graduate Standing in SLIS
L&S Level: Advanced  Typically Offered: Occasionally

LIS 644 Digital Tools, Trends and Debates Credits: 3
Overview of information and communications technologies, digital media, and standards in relationship to information agencies, within the context of current societal controversies. Promotes technical knowledge of ICT and critical analysis of controversies surrounding ICT development, use and modification. Prereq: Jr st & cons inst or Grad st in SLIS
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 645 Intellectual Freedom Credits: 3
An examination of intellectual freedom in the United States including censorship, minors' rights, the Internet, privacy, and copyright with focus on theoretical questions related to the First Amendment to the U.S. Constitution, and historical developments. Prereq: Junior Standing; or Graduate Standing in SLIS
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 650 History of Books and Print Culture in Europe and North America Credits: 3
History of books and print culture in the West from ancient times to the present. Focus on the influence of reading and writing on social, cultural, and intellectual life. Methodologies, theories, and sources for study of book and print culture history. Prereq: Junior standing; or Graduate student in SLIS
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LIS 651 Cataloging and Classification Credits: 3
Basic cataloging and classification principles and suitable techniques. Includes descriptive cataloging, selected entry headings, Sears subject headings, Dewey Decimal Classification, book numbers, and cataloging with supplied copy including OCLC editing. Prereq: LIS 450, 451, 551 or con reg or cons inst
Typically Offered: Occasionally

LIS 652 XML and Linked Data Credits: 3
This course introduces the technical underpinnings of XML and linked data (RDF) as used in information agencies, sufficient for students to learn, use, and leverage newly-encountered markup and metadata languages. Prereq: Junior standing & consent of instructor; or Graduate student in SLIS
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
LIS 653 Government Information Sources Credits: 3
Issues of United States government information policy. Structure, policies, and procedures of the Depository Library System. Selection, acquisition, and problems of access to government information sources, including electronic formats. Prereq: Junior standing & consent of instructor; or Grad standing in SLIS
Typically Offered: Occasionally

LIS 654 Information Services Management Credits: 3
Survey of concepts and skills necessary to perform in an information services organization. Service needs assessment, goal and objective setting, staffing, budgeting and evaluation. Prereq: LIS 450 & 451 or con reg or cons inst
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LIS 655 Collection Management Credits: 3
A course in collection development designed to teach professional skills in selection and control of collections. The course examines large societal forces affecting the ways librarians have traditionally built collections and contemporary changes in access and ownership. Prereq: Grad st in SLIS or cons inst
Typically Offered: Spring

LIS 661 Information Ethics and Policy Credits: 3
Overview of modern ethical theories and how they inform information agency policies and practices; examines selected policy issues relating to information and communications; includes topics such as intellectual property, privacy, censorship, equity of access. Prereq: Jr st & cons inst, or Grad st in SLIS
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LIS 663 Introduction to Cyberlaw Credits: 3
This is an introductory course in the law of cyberspace. The emphasis is on critical thinking about a broad variety of legal and policy problems that arise because of ever-changing information and communication technologies. Prereq: Jr st & cons inst, or Grad st in SLIS
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LIS 665 Topics in Race and Ethnicity in the Information Society Credits: 3
This course discusses issues in the provision of information services in a multiethnic and multilingual society. It also discusses the role of information institutions in promoting and preserving ethnic heritage. Prereq: Junior standing and consent of instructor; or Grad standing in SLIS
Ethnic Studies: Yes L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LIS 668 Digital Curation Credits: 3
This course prepares information professionals to assist with research-data management and digital preservation. Topics include: concepts, theory, and economics of digital preservation; metadata; research-data management as a technological and social phenomenon; teaching digital curation and research-data management; intellectual-property issues; the current state of digital-preservation systems. Prereq: Junior Standing and consent of instructor; or Graduate standing in SLIS
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

LIS 677 Concepts and Tools for Data Analysis and Visualization Credits: 3
Ours has become a data society. Like at no other time, our world--the natural world, from storm systems to diseases; governments and companies; and our conversations with friends and relatives, even our movements--is recorded in digital format. A few years ago, Google CEO Eric Schmidt famously stated that “There was 5 exabytes of information created between the dawn of civilization through 2003, but that much information is now created every 2 days, and the pace is increasing.” (An exabyte is 1 trillion megabytes.) The result is that professional communicators in journalism and mass communication, as well as researchers and private firms, now literally have more data than they know what to do
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

LIS 678 Preservation and Conservation of Library and Archives Materials Credits: 3
Basic concepts, principles, and approaches to protection and care of library and archives material, including nature and structure of paper- and plastic-based materials, deterioration, preservation management, disaster prevention, reformatting, and repair. Laboratory experience offered. Prereq: Graduate standing in SLIS
Typically Offered: Occasionally
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<tr>
<td>LIS 703</td>
<td>Managing Digital Information</td>
<td>1</td>
<td>This course helps professionals to effectively and ethically protect and organize the information that they collect, create, and manage. It also presents collaboration tools and techniques for information creation and management. Prereq: Graduate or professional standing</td>
<td>Occasionally</td>
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<tr>
<td>LIS 712</td>
<td>The Public Library</td>
<td>3</td>
<td>Library service based on knowledge of structure and government, personnel, resources, legislation, building, management and planning, public relations and marketing. Prereq: None</td>
<td>Occasionally</td>
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<tr>
<td>LIS 722</td>
<td>College and University Libraries</td>
<td>3</td>
<td>Place of the library and librarian in the instructional program; special units of study devoted to administration of the library, budgets, buildings, departmental libraries and cooperative ventures. Prereq: None</td>
<td>Occasionally</td>
<td></td>
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<tr>
<td>LIS 732</td>
<td>Strategic Information Services</td>
<td>3</td>
<td>Developing, managing and evaluating information services to corporate, government, research, small business, and community organizations. Overviews of knowledge management, business intelligence, industry analysis, information brokering. Gain skills in information service entrepreneurship and marketing information services. Overview of changes within the profession and networking within the professional community. Prereq: None</td>
<td>Occasionally</td>
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<tr>
<td>LIS 734</td>
<td>Introduction to Archives and Records Management</td>
<td>3</td>
<td>An introduction to the archives profession and basic theory and practice of archives and records administration, including the uses of primary sources in research, appraisal, access, and preservation. Prereq: Graduate standing &amp; consent of instructor</td>
<td>Occasionally</td>
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<tr>
<td>LIS 751</td>
<td>Database Design for Libraries and Information Agencies</td>
<td>3</td>
<td>Introduction to database management systems, the database design process and database management issues, current trends and developments in the database field with a focus on library database systems. Prereq: Grad st in SLIS</td>
<td>Occasionally</td>
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<tr>
<td>LIS 755</td>
<td>Electronic Resource Management &amp; Licensing</td>
<td>3</td>
<td>Management, policy and technology issues associated with licensed digital library resources such as e-journals, e-books, full text and citation databases, digital audio and video collections, and e-references resources. Includes a significant copyright and licensing component. Prereq: Graduate or professional standing</td>
<td>Occasionally</td>
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<tr>
<td>LIS 765</td>
<td>Archives User Services and Outreach</td>
<td>3</td>
<td>This course looks at the theories, principles, and practices involved in making archival material accessible to the public. Particular emphasis is placed on (1) the role that archival description plays in mediating access to archival materials, (2) on the public service and public programming components of archival work. Prereq: Consent of instructor</td>
<td>Fall, Spring</td>
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<tr>
<td>LIS 772</td>
<td>Library Services to Children and Young Adults</td>
<td>3</td>
<td>The theory and structure of public library service to children and young people, its function in the community, and techniques of administration. Seminar and field work. Prereq: Grad st in SLIS or cons inst</td>
<td>Occasionally</td>
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<tr>
<td>LIS 803</td>
<td>Computational Research Methods</td>
<td>3</td>
<td>Provides a broad overview of ways of formulating and investigating novel questions with tools from educational data mining and learning analytics including social network analysis, natural language processing, Markov modeling, Bayesian inference, and agent-based modeling. Prereq: Graduate or professional standing</td>
<td>Every Other Fall</td>
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<tr>
<td>LIS 810</td>
<td>Topics in Research Methods for Library and Information Studies</td>
<td>1 - 3</td>
<td>Critical examination of selected methods of research methods and design; for example, bibliometric techniques, scale design. Prereq: None</td>
<td>Occasionally</td>
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L I S 818 Archives Accessioning and Appraisal Credits: 3
Theories and principles behind archival decisions to acquire records and designate them as worthy of long-term retention in an archive. Emphasis on understanding archival views about society, the role of the archivist, and the attribution of value to archival material. Prereq: LIS 734, concurrent registration or consent of instructor
Typically Offered: Occasionally

L I S 820 Topics in Community Engagement Credits: 1 - 3
Provides a practical experience for students to work in communities with literacy and other information needs. Examples of community work include designing and implementing literacy programs for school-aged children and organizing book and magazine collections in after-school facilities. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

L I S 822 Information Use and Users Credits: 3
Survey of information needs, information seeking behavior, and information use by people in their various roles, situations, and contexts. Methods that are used to study information needs, uses, and information seeking behavior, including community analysis. Prereq: LIS 450 & LIS 451; or consent of instructor
Typically Offered: Occasionally

L I S 826 Field Project in Library and Information Literacy Instruction Credits: 3
Guided practice in the development and implementation of information literacy curriculum at the university level. Participants will assist campus teaching librarians with the Communication Requirement A courses and perform other teaching related tasks at assigned site. Prereq: LIS 450, LIS 451 & LIS 551 or concurrent registration; and consent of instructor
Typically Offered: Occasionally

L I S 839 Special Collections Credits: 1 - 3
A topical course focusing on a special subject (art, law, music, health sciences) or format (maps, microforms, rare books, iconographic materials). Issues related to collection development, acquisitions, reference, indexing and management. Prereq: Cons inst. May be repeated for cr. a max of 6 cr applicable to the Master degree
Typically Offered: Occasionally

L I S 847 Topics in User Services Credits: 1 - 3
Special aspects of user services, publics served, skills in service and service models involved. May include such topics as information and referral; digital reference; literacy services; services to the elderly; services to underserved populations and nontraditional users. Prereq: Cons inst; repeatable; max of 6 cr applicable to Masters degree
Typically Offered: Occasionally

L I S 848 Topics in Literature for Children and Young Adults Credits: 1 - 3
Seminar. Trends and issues in children's and young adult reading, viewing, and listening interests. Topics vary. Typical focuses: realistic young adult novel; publishing trends; rise of book clubs; illustrations and illustrators; mixed media programming. Prereq: Graduate standing in SLIS; repeatable; maximum of 6 credits applicable to the Masters degree
Typically Offered: Occasionally

L I S 853 Metadata Standards and Applications Credits: 3
This course provides an overview of the design and use of metadata for resource description and retrieval in digital environments. Students learn to implement and evaluate standard schemes used in cultural heritage, commercial and other contexts including Dublin Core, MODS, VRA and others. Issues of information behavior, interoperability, quality control, vocabulary control and project management are covered. Prereq: LIS 551
Typically Offered: Spring

L I S 855 Topics in Information Agency Management Credits: 1 - 3
Critical examination of selected management techniques in the areas of materials control, physical plant operations, personnel programs, budget preparation and statistical reporting. May also focus on a particular type of information agency; e.g., data analysis centers, research libraries, or public libraries. Prereq: Graduate standing in SLIS; may be repeated, maximum of 6 credits applicable to Masters degree
Typically Offered: Occasionally
LIS 861 Information Architecture Credits: 3
Covers how traditional library science concepts such as organization of information and users and uses apply to web design, and examines the basics of usability, navigation, project planning, project management, web evaluation, and ongoing web information system management. Prereq: Grad st in SLIS
Typically Offered: Occasionally

LIS 875 Topics in Information Processing and Retrieval Credits: 1 - 3
Current issues in technologies for information processing and retrieval in libraries and information agencies. Prereq: Cons inst. May be repeated for cr; a max of 6 cr applicable to Masters degree
Typically Offered: Occasionally

LIS 879 Digital Libraries Credits: 3
Technologies and other related topics/issues in developing and maintaining digital libraries. Covers digitization and organization of information, user-centered systems design and evaluation, public services, funding, and so on. Project-based course. Prereq: LIS 450, 551 & cons inst
Typically Offered: Occasionally

LIS 910 Smr-Research Design & Methodology for Library & Information Studies Credits: 3
Examines key issues in research design, including how to formulate research questions and shape scholarly research to make valid descriptive and causal inferences. Analysis and evaluation of research designed and conducted with different theoretical frameworks and methodologies; guided proposal preparation. Prereq: SLIS Doctoral student; may be repeated; maximum of 6 credits applicable for doctoral degree
Typically Offered: Occasionally

LIS 931 Seminar in Information Policy, Management and Institutions Credits: 3
Survey of research and theorizing of: information policy and law, the management of information within and between organizations - including information technology and information labor, and investigation of traditional and new institutions in the information society. Prereq: Post-masters st in SLIS or cons inst
Typically Offered: Occasionally

LIS 940 Seminar in Information Use and Users in Context Credits: 3
Exploration of information needs, information seeking behavior, and information use by people in various roles, situations, and contexts that go beyond libraries. It includes exploring factors that influence a user's information needs and behavior. Prereq: Post-Masters st in SLIS or cons inst
Typically Offered: Occasionally

LIS 950 Seminar in LIS Foundations: Histories, Philosophies and Debates Credits: 3
An in-depth examination of some aspect(s) of the historical and philosophical foundations of LIS as it has been transformed through time and space, within the broader cultural context. Prereq: Post-masters st in SLIS or cons inst
Typically Offered: Occasionally

LIS 975 Seminar in Information Organization and Access Credits: 3
Critical examination of technical and non-technical aspects and conitive/socio-cultural processes and implications of systems and models of information organization, retrieval and transfer. Introduces different research approaches and topic areas, including relevance, search behavior, knowledge representation, and systems design and evaluation. Prereq: Post-masters st in SLIS or cons inst
Typically Offered: Occasionally

LIS 976 Special Problems in Archives-Manuscripts Administration Credits: 3
A research seminar. Contemporary problems in archives administration, with special types of archival institutions and special classes of archival material. Prereq: LIS 734 or consent of instructor
Typically Offered: Occasionally

LIS 977 The Practice of Archives-Manuscripts Administration Credits: 3
Practical training in the collecting and accessioning, arrangement, describing and servicing of archives and manuscript holdings in the Division of Archives and Manuscripts of the State Historical Society under the direct supervision of the chief archivist or a member of the professional staff. Prereq: LIS 734 or consent of instructor
Typically Offered: Occasionally

LIS 990 Research and Thesis Credits: 1 - 9
Doctoral students. Prereq: Cons of major professor
Typically Offered: Occasionally
L I S 999 Independent Reading and Research Credits: 1 - 4
Concentrated work on a subject or problem of the student's need or interest; students must submit a typewritten report or paper covering the work accomplished. Prereq: Cons inst
Typically Offered: Occasionally

LINGUISTICS

LINGUIS 101 Human Language Credits: 3
Elementary theory and practical work in phonetics, phonology, morphology, and syntax, with attention to formal grammar. Prereq: Open to Fr. Stdts may not receive cr for both Linguis 101 & 301
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LINGUIS 103 Language, History, and Society Credits: 3
Relation of variation and change to formal properties of human language; consideration of linguistic typology, basic concepts and methods of diachronic analysis. Topics include: language classification; language and social identity, geography, power and prestige; language contact; registers; writing systems. Prereq: Open to Fr. Stdts may not receive cr for both 103 & 303
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 211 Global Language Issues Credits: 4
A series of modules, each showcasing one language and its culture. Each module tackles a major issue about language, such as extinction and revival, language and nationhood, how widely and deeply languages differ, language and wordview, writing systems and literacy, language discrimination and inequality. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LINGUIS 236 Bascom Course Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr.
General Education: COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LINGUIS 237 Language & Immigration in Wisconsin Credits: 3
Migration from abroad and other parts of North America brought and continues to bring myriad languages and dialects to Wisconsin. How and when did these immigrants and their descendants learn English and when and why did they begin to speak only English? How have immigrants shaped how English is spoken in the state? We will do hands-on, original research to find answers to these and related questions about immigrant languages and English past and present in Wisconsin. We'll examine social and historical issues and issues of linguistic structure, drawing on local histories, archival data, Census records and audio recordings and there are opportunities to do fieldwork in communities across the
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 299 Directed Study Credits: 1 - 4
Prereq: Cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LINGUIS 301 Introduction to Linguistics: Descriptive and Theoretical Credits: 3
Elementary theory and practical work in phonetics, phonology, morphology, and syntax, with attention to formal grammar. Prereq: Open to Fr. Stdts may not receive cr for both Linguis 101 & 301
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LINGUIS 303 Language, History, and Society Credits: 3
Relation of variation and change to formal properties of human language; consideration of linguistic typology, basic concepts and methods of diachronic analysis. Topics include: language classification; language and social identity, geography, power and prestige; language contact; registers; writing systems. Prereq: Stdts may not receive cr for both 103 & 303
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
LINGUIS 306 General Phonetics Credits: 3
Theory of articulatory phonetics; practice in recognition, reproduction, and transcription of speech sounds and features in various languages. Prereq: Linguis 101 or 301 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LINGUIS 309 Grammatical Variability of Language Credits: 3
Introduction to theories of variation among world languages, focusing on syntactic phenomena. Prereq: Linguis 101 or 301 or cons inst. Not open to Fr
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LINGUIS 310 Phonology Credits: 3
Analysis and formal statement of phonological systems; problems and methods of phonological theory. Prereq: Linguis 101 or 301
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

LINGUIS 322 Morphology Credits: 3
Morphological characteristics of the world's languages. Introduction to theoretical approaches to morphology. Interaction between morphology and syntax; morphology and phonology. Prereq: Linguis 310
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

LINGUIS 330 Syntax Credits: 3
Grammatical theory; types of elements and processes usable in syntactic description of various sorts. Prereq: Linguis 101 or 301
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LINGUIS 340 Semantics Credits: 3
Meaning in natural languages, relationship between syntax and semantics, compositional semantics. Prereq: Linguis 330 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

LINGUIS 371 Survey of North American Indian Languages Credits: 3
Overview of native languages of North America, including topics such as history, distribution, diversity, government policy, language endangerment, elaboration of cultural domains, language and worldview, speech styles, language structure (phonology, morphology, grammatical categories), performance (narrative, song), writing systems.
Ethnic Studies: Yes L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LINGUIS 373 Topics in Linguistics Credits: 3
Topic varies with instructor. May be repeated. Prereq: Cons inst. Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LINGUIS 426 Field Methods I Credits: 3
Collection and analysis of phonetic, phonological, and morphological data from a particular language, using one or more speakers as consultants. Prereq: Linguis 310 or cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

LINGUIS 427 Field Methods II Credits: 3
Collection and analysis of morphological, syntactic, and semantic data from a particular language, using one or more speakers as consultants. Prereq: Linguis 310 & either 322 or 330, or cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

LINGUIS 430 Language and Culture Credits: 3 - 4
The relationship of language as a communication system to the culture transmitted by it. Principle problems in the interrelations of language and nonlinguistic human behavior. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LINGUIS 481 Junior Honors Tutorial Credits: 1
May be repeated for credit.
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall
LINGUIS 482 Junior Honors Tutorial Credits: 1
May be repeated for credit.
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 510 Phonological Theories Credits: 3
Theories of phonology, and advanced phonological description. Prereq: LINGUIS 310
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 522 Advanced Morphology Credits: 3
Advanced morphological theory. Prereq: LINGUIS 322
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LINGUIS 530 Syntactic Theories Credits: 3
Theories of syntax, and syntactic description. The relation of syntax to semantics, and other aspects of linguistic theory. Prereq: LINGUIS 330
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LINGUIS 540 Advanced Semantics Credits: 3
Indexicality, reference and quantification, intentionality, and tense. Prereq: Linguis 340
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 561 Introduction to Experimental Phonetics Credits: 3
Design and conduct of phonetic experiments; survey of instrumentation and techniques of investigating physiological, physical, and perceptual aspects of linguistic phenomena. Theory of acoustic phonetics. Lectures, demonstrations, lab, readings. Prereq: A phonetics course or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LINGUIS 562 Advanced Experimental Phonetics Credits: 3
Continuation of 561, with development of lab skills applied to real language problems. Relations of instrumental evidence to phonetic and phonological systems and universals. Statistical and psycholinguistic aspects. Lectures, demonstrations, lab, readings, term project. Prereq: Linguis 310 and 561
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LINGUIS 571 Structure of a Language Credits: 3
In-depth study of all components of the grammar of a language. Prereq: Linguis 310 & 330, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LINGUIS 583 Senior Honors Tutorial Credits: 1
May be repeated for credit.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LINGUIS 584 Senior Honors Tutorial Credits: 1
May be repeated for credit.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 610 Topics in Phonological Theory Credits: 3
In-depth examination of a single phonological theory or a single area of recent phonological research. May be repeated for different topics. Prereq: Linguis 510 or Grad st in linguistics or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LINGUIS 681 Honors Seminar-Senior Thesis Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LINGUIS 682 Honors Seminar-Senior Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LINGUIS 699 Independent Reading Credits: 1 - 6
Prereq: L&S Undergrads need 2.5, Jr or Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
LINGUIS 800 Research Methods and Materials Credits: 3
Prereq: Graduate or professional standing
Typically Offered: Occasionally

LINGUIS 977 Seminar Credits: 2 - 3
See Linguistics 976 for course description. Prereq: Cons inst
Typically Offered: Occasionally

LINGUIS 978 Seminar Credits: 2 - 3
See Linguistics 976 for course description. Prereq: Cons inst
Typically Offered: Occasionally

LINGUIS 979 Seminar Credits: 2 - 3
See Linguistics 976 for course description. Prereq: Graduate or professional standing
Typically Offered: Occasionally

LINGUIS 990 Thesis Credits: 1 - 12
Research in connection with the doctoral thesis. Prereq: Grad st in linguistics
Typically Offered: Occasionally

LINGUIS 999 Independent Reading Credits: 1 - 12
Prereq: Grad st in linguistics
Typically Offered: Occasionally

LITERATURE IN TRANSLATION

LITTRANS 201 Survey of 19th and 20th Century Russian Literature in Translation I Credits: 3
Pushkin to Tolstoy; reading and lecture in English. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 202 Survey of 19th and 20th Century Russian Literature in Translation II Credits: 3
Dostoevsky to the present, reading and lecture in English. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 203 Survey of 19th and 20th Century Russian Literature in Translation I Credits: 4
Pushkin to Tolstoy; reading and lecture in English; 4th hour discussion section for Communication-B credit.
Prereq: Open to Fr
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 204 Survey of 19th and 20th Century Russian Literature in Translation II Credits: 4
Chekhov to the present; reading and lecture in English; 4th hour discussion section for Communication-B credit.
Prereq: Open to Fr
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 205 Women in Russian Literature in Translation Credits: 3 - 4
Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 207 Slavic Science Fiction through Literature and Film Credits: 3
Science Fiction (SF) is typically thought of as an American (or American-British) genre. This course explores the rich tradition of Slavic contributions to SF. We will survey early and contemporary works in the Czech, Polish, and Russian contexts, most of which are little known in the US but are nonetheless fundamental to SF as a world genre. Alongside reading these works, we will discuss and analyze film adaptations that have, in some cases, become more famous than written texts themselves. Prereq: None
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

LITTRANS 208 The Writings of Vaclav Havel: Critique of Modern Society Credits: 3
Survey and critical analysis of the writings of Vaclav Havel from the 1960's through the 1990's: plays, philosophical and dissident essays, selected speeches as president. Readings in English. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LITTRANS 209 Masterpieces of French Literature and Culture Credits: 3
The entire span of French literature from the Middle Ages to the present as well as selected Francophone writers. Emphasis on literary movements and their cultural settings. Major authors will include Montaigne, Voltaire, Stendhal, Proust, de Beauvoir. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 211 Modern Indian Literatures in Translation Credits: 3
Introduction for intermediate and advanced students to the systematic study of the literatures of India produced since about A.D. 1800, using a selection of poetry, fiction, drama, and/or nonfictional prose in translation from representative literary languages of the subcontinent. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 213 Love and Sex in Italian Comedy Credits: 3 - 4
Through the close reading and discussion of selected major plays, this course explores Italian comedy and dramatic literature across the centuries, from its Roman origins to contemporary examples. Students will read and discuss texts representative of the major comedic modes (e.g. erudite, improvised, etc.), paying close attention to language and structure, genre debates, character typologies, performance history, and the cultural-historical contexts that informed playwrights. Discussion and targeted writing assignments will aim at cultivating in students a deeper understanding of Italian sensibilities and cultural attitudes regarding humor and satire, love and sex, tragedy within comedy, h

LITTRANS 214 Literatures of Central Asia in Translation Credits: 3
Critical survey of the development of medieval and modern literatures of the peoples of Central Asia from pre-Islamic times to the present with selected readings in English translation. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LITTRANS 215 Polish Literature in Translation: 14th to the Mid-19th Century Credits: 3
The Beginnings, Baroque, Enlightenment and Romanticism. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LITTRANS 220 Chekhov in Translation Credits: 3 - 4
Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 221 Gogol in Translation Credits: 3 - 4
Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 222 Dostoevsky in Translation Credits: 3 - 4
Major works, lecture in English. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 223 Vladimir Nabokov: Russian and American Writings Credits: 3
The major novels of Vladimir Nabokov studied in the context of Russian and American literatures. Nabokov as a quintessential artist in exile, whose work explores loss of language, country and home. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 224 Tolstoy in Translation Credits: 3 - 4
Major works, lecture in English. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
LITTRANS 226 Introduction to Luso-Afro-Brazilian Literature Credits: 3
Introduction to the cultural and literary practices of the Portuguese-speaking world. Readings include novels, short stories, and poetry from Portugal, Brazil, and Lusophone Africa. All readings and lectures in English. Prereq: Open to all Undergrads
General Education: COM B  L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LITTRANS 227 Introduction to Biblical Literature (in English) Credits: 4
Introduction to the literature and literary history of the Old Testament, Apocrypha, Dead Sea Scrolls, Talmud, and Midrashim. Prereq: Not open to students that have completed HEBR ST 217
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 229 Representation of the Jew in Eastern European Cultures Credits: 3
The image and representation of the "Jew" and Jews in the literatures and cultures of the Slavic countries of Eastern Europe, including Russia, Poland, Serbia, Croatia, and Bosnia. Both pre- and post-Holocaust texts will be read and critically examined. Prereq: Open to Fr with cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 231 Manga Credits: 3
Surveys the manga (Japanese comicbook) from precursors in premodern woodblock-printed booklets to contemporary manifestations in subgenres like gekiga, mecha, shonen, and shojo. Draws on critical writings on literature, popular culture, and visual culture. Japanese language proficiency is not required. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 232 Anime Credits: 3
Surveys anime (Japanese animation) from 1930s shorts through contemporary feature-length, experimental, and televised serial-form productions. Draws on critical writings on postmodernism, digital cinema, and visual culture. Japanese language ability is not required. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 233 Russian Life and Culture Through Literature and Art (to 1917) Credits: 3 - 4
Prerevolutionary Russian visual arts, architecture, music and cinema; provides an inside view of life in prerevolutionary Russia with the help of selected readings in Russian literature. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 234 Soviet Life and Culture Through Literature and Art (from 1917) Credits: 3 - 4
Postrevolutionary Russian and Soviet visual arts, architecture, music and cinema; provides an inside view of life under socialism with the help of selected readings in Soviet literature. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 235 The World of Sagas Credits: 3
The Icelandic sagas viewed in their social, cultural, and literary contexts. An introduction to one of the greatest bodies of vernacular literature of the early Middle Ages. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 236 Bascom Course-In Translation Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr.
General Education: COM B  L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LITTRANS 237 Biblical Poetry in Translation Credits: 3
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 240 Soviet Literature in Translation Credits: 3 - 4
Lecture in English. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>L&amp;S Breadth:</th>
<th>L&amp;S Level:</th>
<th>L&amp;S Credit:</th>
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<tr>
<td>LITTRANS 241</td>
<td>Literatures and Cultures of Eastern Europe</td>
<td>3</td>
<td>Open to Fr</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall</td>
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<tr>
<td>LITTRANS 247</td>
<td>Topics in Slavic Literatures in Translation</td>
<td>3</td>
<td>Open to Fr</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>LITTRANS 249</td>
<td>Literature in Translation: Nineteenth-Century French Masterpieces</td>
<td>3</td>
<td>So st or cons inst</td>
<td>Literature</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>LITTRANS 252</td>
<td>Spanish Literary Masterpieces in Translation</td>
<td>3</td>
<td>Undergraduates only</td>
<td>Literature</td>
<td>Elementary</td>
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<td>Fall, Spring, Summer</td>
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<td>LITTRANS 253</td>
<td>Literature in Translation: Dante's Divine Comedy</td>
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<td>So st or cons inst</td>
<td>Literature</td>
<td>Intermediate</td>
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<td>Fall</td>
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<tr>
<td>LITTRANS 254</td>
<td>In Translation: Lit of Modern Italy-Existentialism, Fascism, Resistance</td>
<td>3</td>
<td>So st or cons inst</td>
<td>Literature</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>LITTRANS 255</td>
<td>Literature in Translation: Boccaccio's Decameron-The Human Comedy</td>
<td>3</td>
<td>So st or cons inst</td>
<td>Literature</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>LITTRANS 256</td>
<td>Lit in Translation: Images of the Individual in the Italian Renaissance</td>
<td>3</td>
<td>So st</td>
<td>Literature</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>LITTRANS 257</td>
<td>Literatures of Muslim Societies in Translation</td>
<td>3</td>
<td>LCA majors and all Grads register for LCA 357</td>
<td>Literature</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Occasionally</td>
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<tr>
<td>LITTRANS 260</td>
<td>Italy and the Invention of America: from Columbus to World War II</td>
<td>3</td>
<td>None</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>LITTRANS 261</td>
<td>Survey of Chinese Literature in Translation</td>
<td>3</td>
<td>Open to Fr</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall</td>
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<tr>
<td>LITTRANS 262</td>
<td>Survey of Chinese Literature in Translation</td>
<td>3</td>
<td>Open to Fr</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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<tr>
<td>LITTRANS 263</td>
<td>Survey of Japanese Literature in Translation</td>
<td>3</td>
<td>Open to Fr</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall</td>
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<tr>
<td>LITTRANS 264</td>
<td>Survey of Japanese Literature in Translation</td>
<td>3</td>
<td>Open to Fr</td>
<td>Literature</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Spring</td>
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</tbody>
</table>
LITTRANS 268 French Women Writers from the Middle Ages to the Nineteenth Century Credits: 3
Representative texts of French women writers from Marie de France, the women troubadours, and Christine de Pizan to Madame de Stael and George Sand, in historical, social, and cultural context. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LITTRANS 269 Yiddish Literature and Culture in Europe Credits: 3
Exploration of European Yiddish fiction, poetry, folklore, and cinema, with a focus on works of the 19th and 20th centuries. Prereq: Open to Freshmen
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

LITTRANS 270 German Women Writers in Translation Credits: 3
Prereq: Open to Fr; not open to stdts who are taking or have taken German 302 or above
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LITTRANS 271 In Translation: Masterpieces of Scandinavian Literature, Middle Ages-1900 Credits: 3 - 4
Prereq: Open to Freshmen. 4th credit for Com-B stdts only
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

LITTRANS 272 French Pop Culture Credits: 3
Through the exploration of landmark and popular French (and few international) texts, this course seeks to narrow the perceived gap between low/high art and it contextualizes historically and aesthetically French pop culture (as literature, film, graphic novel, music etc.). Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

LITTRANS 273 Urdu Prose Fiction in India and Pakistan in Translation Credits: 3
Major trends in Urdu fiction from the 1880's to the present, with emphasis on literary movements, narrative modes and techniques, stylistics and aesthetics. Prereq: Open to Fr. LCA majors & all Grads register for LCA 373
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 274 In Translation: Masterpieces of Scandinavian Literature-the 20th Century Credits: 3 - 4
Continuation of 273. Prereq: Open to Freshmen. 4th credit for Com-B stdts only
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

LITTRANS 275 In Translation: The Tales of Hans Christian Andersen Credits: 3 - 4
Prereq: Open to Fr. 4th cr for Com-B stdts only
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LITTRANS 276 Special Topics in German and World Literature/s Credits: 3
Exploration of diverse world literary traditions, including German. All readings and lectures in English. Prereq: Sophomore standing
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LITTRANS 277 Topics in Twentieth-Century German Literature (in Translation) Credits: 3
Discussion of major twentieth-century literary texts from Germany, Switzerland, and Austria by such authors as Franz Kafka, Bertolt Brecht, Anna Seghers, Friedrich Durrenmatt, Gunter Grass, Christa Wolf. Possible areas of emphasis: identity formation; technology and culture; literary representations of fascism. Prereq: Not open to stdts who have taken or are taking German 302 or above. Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LITTRANS 279 Yiddish Literature and Culture in America Credits: 3
Exploration of American Yiddish poetry, fiction, theater, and cinema created by European Jews in the United States. Prereq: Open to Freshmen
Ethnic Studies: Yes L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

LITTRANS 301 Modern Indonesian Literature in Translation Credits: 3
Representative novels, short stories and essays from early 20th century to the present are placed in the literary and cultural context of Indonesia. Prereq: So st or cons inst. LCA majors & all Grads register for LCA 401
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
LITTRANS 303 Southeast Asian Literature in Translation Credits: 3
Introduction to Southeast Asia through modern literature in its cultural and political context, focusing on the mainland (Vietnam and Thailand) in the fall semester and on the islands (Indonesia and the Philippines) in the spring. Prereq: So st or cons inst. LCA majors & all Grads register for LCA 403
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LITTRANS 304 Southeast Asian Literature in Translation Credits: 3
See Literature in Translation 303. Prereq: So st or cons inst. LCA majors & all Grads register for LCA 404
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 318 Modern Jewish Literature Credits: 3 - 4
Pre-modern Jewish society's breakdown, immigration, the challenges of integration and exclusion, and the establishment of new communities will serve as a backdrop for the analysis and comparison of Jewish literary texts written in Hebrew, Yiddish, German, Russian, and English. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 319 Scandinavian Children's Literature Credits: 3 - 4
Forms and themes of Scandinavian children's literature from the nineteenth century to the present. Exploration of the dominant concerns of authors, adult and non-adult audiences. Film adaptations and Scandinavian-American materials included. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LITTRANS 324 Topics in Scandinavian Literature Credits: 3 - 4
An examination of selected topics in Scandinavian literature designed for students as literature in translation. Prereq: Prerequisites vary by course
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LITTRANS 326 Topics in Dutch Literature in Translation Credits: 3
Study of an author or theme in modern Dutch/Flemish literature, presented by the current Dutch/Flemish writer in residence. Prereq: At least one intermed-level crse in lit
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 328 Classical Rabbinic Literature in Translation Credits: 3 - 4
Introduction to the literature of the Classical Rabbinic or Talmudic period of Judaism (2nd to 7th centuries CE). Historical and intellectual background; the interrelation of liturgy, legal and non-legal literature. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 329 The Vampire in Literature and Film Credits: 3
Explores the image of the vampire in literature and visual arts as a metaphor for Eastern Europe and the Slavic world. Begins with folklore and moves through literary texts to film and television. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

LITTRANS 331 In Translation: Scandinavian Topics in Depth Credits: 1 - 2
Penetrating study of an important Scandinavian literary or cultural topic. Content will vary with each offering. Prereq: Jr st or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 332 Prophets of the Bible Credits: 4
An introduction to the thought, literature, and history of the prophets of ancient Israel (in English). Prereq: CLASSICS/JEWISH/LITTRANS/RELIG ST 227 or Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 334 In Translation: The Art of Isak Dinesen/Karen Blixen Credits: 3 - 4
Blixen's tales and biographical fiction. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

LITTRANS 335 In Translation: The Drama of Henrik Ibsen Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
LITTRANS 336 In Translation: The Drama of August Strindberg Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 337 In Translation: 19th Century Scandinavian Fiction Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LITTRANS 338 In Translation: Knut Hamsun and the 20th Century Norwegian Novel Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 339 In Translation: Kierkegaard and Scandinavian Literature Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 342 In Translation: Mythology of Scandinavia Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LITTRANS 343 In Translation: The Woman in Scandinavian Literature Credits: 3 - 4
Prereq: Jr st
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LITTRANS 344 In Translation: The Scandinavian Tale and Ballad Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

LITTRANS 346 In Translation: The Icelandic Sagas Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 347 In Translation: Kalevala and Finnish Folk-Lore Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 348 In Translation: Modern Indian Theatre Credits: 3
Study of drama, dramatic theory, and performance in modern India. Course considers interpenetration of Indian and Western systems of dramaturgy, relation between colonial and postcolonial institutions, socio-cultural and political contexts, and major modern dramatic genres. Prereq: Junior standing or consent of instructor
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

LITTRANS 349 In Translation: Modern Scandinavian Drama Credits: 4
Examination of the theater of Scandinavia in the wake of Henrik Ibsen and August Strindberg that places modern Nordic theater in a wider European context. Prereq: Jr st
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 350 Scandinavian Decadence in its European Context Credits: 3 - 4
Examines the European context of literary decadence (Baudelaire, Huysmans, Wilde) and how it inspired some of Scandinavia’s most important writers (Strindberg, Hamsun, Jacobsen). Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 356 French and Italian Renaissance Literature Online Credits: 3 - 4
A web-based course comprising 15 week-long units, organized as a virtual journey through Renaissance Italian and French cities. Each unit includes a lecture and readings from main literary texts and cultural documents associated with the city or region. Prereq: Open to all Undergrads
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

LITTRANS 367 Israeli Fiction in Translation Credits: 3 - 4
Major writers, trends and themes in Israeli fiction from pre-State period to present. Meets with Hebrew Studies 343. Prereq: Open to Fr. 4th credit earned by prosmr meetings & research paper
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
LITTRANS 368 Modern Japanese Fiction Credits: 3
Intensive study of novels and stories of three or four writers of the present century, such as Soseki, Tanizaki, Kawabata, and Mishima. Translations of high quality are main texts, but students of Japanese are encouraged to read as much as possible in the original. Prereq: Not open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 372 Classical Japanese Prose in Translation Credits: 3
Examination of the major prose genres of Japanese literature to 1868. Primary focus on Heian women writers, including the Tale of Genji, or on major writers and genres of the Edo period. No knowledge of Japanese required. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 373 Topics in Japanese Literature Credits: 3
Traces the evolution of a given idea through the course of Japanese literature. Possible topics include: women in Japanese fiction, effect of Buddhism on Japanese literature, reflections of everyday life in Japanese literature, and visual-verbal narration. Translations of high quality will be the principal texts, but students of Japanese will be encouraged to read as much as possible in the original. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

LITTRANS 374 Topics in Korean Literature Credits: 3
Traces the evolution of a given idea through Korean literature. Possible topics: women in Korean fiction, Confucianism on Korean literature, and contemporary literature and film. Texts: English translations, but students of Korean urged to read as much as possible in the original. Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 400 Machiavelli and His World Credits: 3
Introduces students to the major works of Machiavelli through the close reading of his writings in cultural and historical contexts. Discussion and targeted writing assignments will aim at cultivating in students 1) a broad understanding of Machiavelli’s principal intellectual attitudes, 2) a deeper understanding of his literary sensibility, and 3) the ability to articulate controversies and complexities surrounding his thought. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

LITTRANS 410 In Translation: Special Topics in Italian Literature Credits: 3
Treatment of a specific period, genre, theme or movement in Italian literature. Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

LITTRANS 423 In Translation: Slavic Drama in Context Credits: 3
Slavic playwrights and the European tradition of theatre and drama. Prereq: Sr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LITTRANS 428 Memory and Literature from Proust to Knausgard Credits: 3
Investigates the relations between theories of memory, both individual and collective, and modern literary representations of remembering. We survey seminal conceptions of memory in the interdisciplinary field of memory studies, investigating topics such as nostalgia, trauma, personal and cultural identity, war and Holocaust, sites of memory, and autobiographical narrative. Through the avenues opened up by these theoretical frameworks, we consider the narrative forms as well as the ethical and political dimensions of remembering in major novels by Marcel Proust, W. G. Sebald, and Karl Ove Knausgard. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

LITTRANS 454 History of Serbian and Croatian Literature Credits: 3
Major literary movements of Serbian and Croatian literature from the medieval period until the formation of the Yugoslav state in 1919. Readings in English. Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

LITTRANS 455 Modern Serbian and Croatian Literature in Translation Credits: 3
Continuation of Slavic 450, from 1919 until the present. Study of major twentieth-century writers. Readings in English. Prereq: So st
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
LITTRANS 473 Polish Literature (in Translation) since 1863  Credits: 3
A comprehensive survey of Polish literature and its historical background from 1863 to the present. Readings in English. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MATHEMATICS

MATH 95 Fundamental Mathematical Skills  Credits: 3
Covers the fundamental mathematics necessary both as survival skills in daily life and as tool for success in college. Includes arithmetic procedures and their applications. Intended for students fulfilling the remediation requirements in mathematics. Prereq: Remedial status as determined by the University; does not count for degree credit. Open to Fr
Typically Offered: Fall

MATH 101 Intermediate Algebra  Credits: 3
Real numbers, linear equations and inequalities, integral and fractional exponents, polynomials and their arithmetic, polynomial equations and equations with fractional exponents, quadratic formula and completing the square, systems of two linear equations, graphing (linear and other basic equations, and inequalities), problem solving using algebra and graphs. Prereq: Minimum math competency (1 unit ea HS algebra & geometry) & satisfactory placement scores. Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 112 Algebra  Credits: 3
Polynomial equations, remainder and factor theorems, functions, graphs of functions, simultaneous linear equations, logarithm and exponential functions, sequences and series, mathematical induction, binomial theorem. Prereq: MATH 101 or placement into MATH 112; MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 113 Trigonometry  Credits: 3
This course covers the graphs, properties and geometric significance of trigonometric functions of a real variable. Other topics include trigonometric equations and identities, application, trigonometric form of complex numbers, DeMoivre’s theorem, and polar and parametric equations. The course also has a significant number of applications, especially related to other disciplines. Prereq: MATH 112 or placement into MATH 113
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 114 Algebra and Trigonometry  Credits: 5
Covers Math 112 and Math 113. Not recommended for students with less than an AB in Math 101. Prereq: MATH 101 or placement into MATH 114 or 171; MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 118 Summer Collegiate Experience Mathematics Course  Credits: 2
A preparation and introductory math course for students enrolled in the Summer Collegiate Experience program. The course will include material from precalculus and calculus and related topics depending on students’ results on the math placement exam. Prereq: Student must be enrolled in the Summer Collegiate experience program and have consent of the math SCE coordinator.
Open to Freshmen only
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

MATH 130 Mathematics for Teaching: Numbers and Operations  Credits: 3
Mathematics for teaching focusing on numbers and operations in K-8. Emphasis on understanding a variety of problem solving strategies and word problems. Content will focus on place value, models for the operations, standard and alternative algorithms, fractions, and decimals. Prereq: MATH 101 or placement into MATH 112; and Elementary Education or Special Education classification; MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 131 Mathematics for Teaching: Geometry and Measurement  Credits: 3
Mathematics for teaching focusing on geometry and measurement in K-8. Emphasis on understanding a variety of problem solving strategies and deductive reasoning. Content will focus on geometric shapes and their relationships, transformations, measurement, and the connection to numbers. Prereq: Grade of C in MATH 130; and Elementary Education or Special Education classification
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
MATH 132 Problem Solving in Algebra, Probability and Statistics Credits: 3
Algebra, probability, and statistics for teachers of elementary school mathematics. Topics include proportions, relations, functions and their graphs, equally likely outcomes, expected value, and representation of data. The emphasis is on problem solving, modeling, and analysis of solution strategies. Prereq: Open to Freshmen. Math 130 & 131 with a grade of C or better (or exemption from Math 130 and/or 131). Open only to stdts in specific educ programs (PRE, PSR, EED, SPE) or by permission of Educ Acad Svcs
General Education: QR-B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 135 Algebraic Reasoning for Teaching Math Credits: 3
Topics from high school/college algebra relevant to teaching mathematics in middle school, including linear and quadratic equations and inequalities, linear systems, concept of a function, exponential and polynomial functions, with an emphasis on problem solving and modeling. Prereq: Grade of C in MATH 130, and (MATH 112, 114, or 171), and classified in Elementary Education or Special Education
general Education: QR-B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 136 Pre-calculus and Calculus for Middle School Teachers Credits: 6
Course designed to develop future middle school mathematics teachers' knowledge of precalculus and calculus concepts and to make connections between these concepts and middle school mathematics. Prereq: Grade of C MATH 135; and Elementary Education or Special Education classification
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MATH 138 Mathematics for Teaching: Conjecture, Generalization, and Proof Credits: 3
Explores the roles of conjecture, generalization, and proof in effective teaching of mathematics. Students explore mathematical reasoning as an iterative process of conjecturing, generalizing and investigating. Topics are drawn from counting, probability, statistics, arithmetic, algebra, and geometry. Prereq: Grade of C in MATH 136; and Elementary Education classification
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 141 Quantitative Reasoning and Problem Solving Credits: 3
Quantitative reasoning for students who need to satisfy part A of the Quantitative Reasoning requirement and prepare for QR-B courses, but do not want to continue in the calculus sequence. Prereq: MATH 095 or placement into MATH 101; MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 171 Calculus with Algebra and Trigonometry I Credits: 5
Topics in algebra, trigonometry and precalculus are integrated with elementary differential calculus. Part of a 2-semester sequence with Math 217; these two courses together are equivalent to Math 114 and 221. Not recommended for students with less than an AB in Math 101. Prereq: MATH 101 or placement into MATH 114 or 171; MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 198 Directed Study Credits: 1 - 3
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

MATH 207 Topics in Mathematics Study Abroad Credits: 1 - 5
Credit is awarded to students who have completed an appropriate math course abroad at the intermediate level having no direct equivalence within the math department offerings. The study abroad course must be pre-approved by the math department. Prereq: Enrollment in a resident study abroad program & approval of the math dept.
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 210 Topics in Finite Mathematics Credits: 3
Topics in finite mathematics including elementary matrix algebra, linear programming, introduction to probability, and mathematics of finance. Students planning to take both Math 210 and Math 211 are advised to take Math 210 first. Primarily for students in social and biological science and prebusiness. Students preparing for advanced study in mathematics should take Math 221-222-223 rather than Math 210-211-213. Prereq: Adv math competency--algebra and suitable placement scores or Math 112 or 114. Open to Freshmen
General Education: QR-B  L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MATH 211 Calculus Credits: 5
Essential concepts of differential and integral calculus; exponential and logarithmic functions; functions of several variables. Primarily for students in prebusiness and some social sciences. Students preparing for advanced study in mathematics, physics, engineering and other sciences should take Math 221-222-234 rather than Math 210-211-213. Most students in the biological sciences should take Math 221. The course Math 210 is not a prerequisite for Math 211. Prereq: MATH 112, 114, or placement into MATH 211
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

MATH 213 Calculus and Introduction to Differential Equations Credits: 3
Techniques of integration, multiple integrals, infinite sequences and series, first order differential equations, two-dimensional systems of differential equations, difference equations, with models from and applications in business and the social and biological sciences. Prereq: MATH 211, 217, 221 or 275
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

MATH 217 Calculus with Algebra and Trigonometry II Credits: 5
Continuation of Math 171. Topics in algebra, trigonometry and precalculus are integrated with elementary differential calculus. Completion of Math 217 implies completion of Math 221 and Math 114. Prereq: MATH 171
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Spring

MATH 221 Calculus and Analytic Geometry 1 Credits: 5
Introduction to differential and integral calculus and plane analytic geometry; applications; transcendental functions. Prereq: MATH 113, 114, or placement in MATH 221
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

MATH 222 Calculus and Analytic Geometry 2 Credits: 4
Techniques of integration, improper integrals, first order ordinary differential equations, sequences and series, Taylor series, vector geometry in two and three dimensions. Prereq: MATH 217, 221, or 275
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

MATH 228 WES Calculus Supplement Credits: 2
Topics in algebra, trigonometry, differential, integral and multi-variable calculus and analytic geometry will be covered depending on which calculus course Math 228 is attached to. Math 228 must be taken in conjunction with the appropriate WES section of Math 171 or 217 or 221 or 222 or 234. Prereq: Member of Wisconsin Emerging Scholars--MATH Program
L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

MATH 234 Calculus--Functions of Several Variables Credits: 4
Introduction to calculus of functions of several variables; calculus on parameterized curves, derivatives of functions of several variables, multiple integrals, vector calculus. Prereq: MATH 222 or 276
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

MATH 240 Introduction to Discrete Mathematics Credits: 3
Basic concepts of logic, sets, partial order and other relations, and functions. Basic concepts of mathematics (definitions, proofs, sets, functions, and relations) with a focus on discrete structures: integers, bits, strings, trees, and graphs. Propositional logic, Boolean algebra, and predicate logic. Mathematical induction and recursion. Invariants and algorithmic correctness. Recurrences and asymptotic growth analysis. Fundamentals of counting. Prereq: Math 221
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

MATH 275 Topics in Calculus I Credits: 5
Topics in first semester calculus. This is the first semester of the calculus honors sequence. Prereq: Course is available by invitation only for freshmen students who placed into Math 221. Satisfied Quantitative Reasoning (QR) A requirement
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall
MATH 276 Topics in Calculus II Credits: 5
Topics in second semester calculus. This is the second semester of the calculus honors sequence. It is intended for students who completed Math 275. Prereq: Either Math 275 or Math 221 and consent of instructor. Satisfied Quantitative Reasoning (QR) A requirement
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Spring

MATH 298 Directed Study in Mathematics Credits: 1 - 3
Prereq: Cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MATH 303 Theory of Interest and Life Insurance Credits: 3
Application of calculus to compound interest and insurance functions; interest compounded discretely and continuously; force of interest function; annuities payable discretely and continuously; bonds and yield rates; life tables, life annuities, single and annual premiums for insurance and annuities; reserves. Prereq: MATH 222 or MATH 276
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MATH 309 Introduction to Probability and Mathematical Statistics I Credits: 3
Probability and combinatorial methods, discrete and continuous, univariate and multivariate distributions, expected values, moments, normal distribution and derived distributions, estimation. Prereq: Math 234 or concurrent registration. Students may not enroll if they have completed Stat 311 or Math/Stat 431
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MATH 310 Introduction to Probability and Mathematical Statistics II Credits: 3
This course in mathematical statistical inference aims at providing an understanding of likelihood's central role to statistical inference, using the language of mathematical statistics to analyze statistical procedures, and using the computer as a tool for understanding statistics. Specific topics include: samples and populations, estimation, hypothesis testing, and theoretical properties of statistical inference. Prereq: Math/Stat 309 or Stat 311 or Math/Stat 431 (with Math/Stat 309 recommended) AND an introductory statistics course (Stat 224 or Stat 301 or Stat 302 or Stat 324 or Stat 371 or Econ 310)
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MATH 319 Techniques in Ordinary Differential Equations Credits: 3
Review of linear differential equations; series solution of linear differential equations; boundary value problems; Laplace transforms; possibly numerical methods and two dimensional autonomous systems. Prereq: MATH 222 or 276
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MATH 320 Linear Algebra and Differential Equations Credits: 3
Introduction to linear algebra, including matrices, linear transformations, eigenvalues and eigenvectors. Linear systems of differential equations. Numerical aspects of linear problems. Prereq: MATH 222 or 276
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MATH 321 Applied Mathematical Analysis Credits: 3
Vector analysis: algebra and geometry of vectors, vector differential and integral calculus, theorems of Green, Gauss, and Stokes; complex analysis: analytic functions, complex integrals and residues, Taylor and Laurent series. Prereq: Math 223 or 234
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MATH 322 Applied Mathematical Analysis Credits: 3
Sturm-Liouville theory; Fourier series, including mean convergence; boundary value problems for linear second order partial differential equations, including separation of variables and eigenfunction expansions. Prereq: Math 319, 321
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MATH 331 An Introduction to Probability and Markov Chain Models Credits: 3
An overview of basic probability including discrete and continuous random variables, moment generating functions, limit theorems, conditional probability and expectations, random walks, and Markov chains. Prereq: Math 234 or Math 222 & 240
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
MATH 340 Elementary Matrix and Linear Algebra Credits: 3
Matrix algebra, linear systems of equations, vector spaces, sub-spaces, linear dependence, rank of matrices, determinants, linear transformations, eigenvalues and eigenvectors, diagonalization, inner products and orthogonal vectors, symmetric matrices. Prereq: MATH 234 or (MATH 222 and COMP SCI/MATH 240) or (MATH 276 and COMP SCI/MATH 240). Not open to students with credit for MATH 341 or 375
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 341 Linear Algebra Credits: 3
This course emphasizes the understanding of concepts in linear algebra and teaches to write and understand proofs in mathematics in general and in linear algebra in particular. Prereq: MATH 234. Not open to students who have credit for MATH 375
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 375 Topics in Multi-Variable Calculus and Linear Algebra Credits: 5
Vector spaces and linear transformations, differential calculus of scalar and vector fields, determinants, eigenvalues and eigenvectors, multiple integrals, line integrals, and surface integrals. Prereq: Math 276 or consent of instructor
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MATH 376 Topics in Multi-Variable Calculus and Differential Equations Credits: 5
Topics in Multi-variable calculus and introduction to differential equations. Prereq: Math 375 or cons inst. A total of only 10 credits can be received when all three of the courses Math 234, 375, & 376 are taken. Open to Fr
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 407 Topics in Mathematics Study Abroad Credits: 1 - 5
Credit is awarded to students who have completed an appropriate math course abroad at the advanced level having no direct equivalence within the math department offerings. The study abroad course must be pre-approved by the math department. Prereq: Enrollment in a resident study abroad prog & approval of the math dept
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 415 Applied Dynamical Systems, Chaos and Modeling Credits: 3
An introduction to nonlinear dynamical systems including stability, bifurcations and chaos. The course will give underlying mathematical ideas, but emphasize applications from many scientific fields. Prereq: MATH 319 or 320 or 376
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MATH 421 The Theory of Single Variable Calculus Credits: 3
This course covers material in first and second semester calculus but it is intended to teach math majors to write and understand proofs in mathematics in general and in calculus in particular. Prereq: MATH 234
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 425 Introduction to Combinatorial Optimization Credits: 3
This course focuses on optimization problems over discrete structures, such as shortest paths, spanning trees, flows, matchings, and the traveling salesman problem. We will investigate structural properties of these problems, and we will study both exact methods for their solution, and approximation algorithms. Prereq: Math 320 or 340 or 341 or 375
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 431 Introduction to the Theory of Probability Credits: 3
Probability in discrete sample spaces; combinatorial analysis; conditional probabilities, stochastic independence, Laplace limit theorem, Poisson distribution, laws of large numbers, random variables, central limit theorem, applications. Prereq: Math 223 or 234
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 435 Introduction to Cryptography Credits: 3
Cryptography is the art and science of transmitting digital information in a secure manner. This course will provide an introduction to its technical aspects. Prereq: Math 320 or 340 or cons inst. Open to Fr
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
MATH 441 Introduction to Modern Algebra Credits: 3
The integers, emphasizing general group and ring properties. Permutation groups, symmetry groups, polynomial rings, leading to notions of abstract groups and rings. Congruences, computations, including finite fields and applications. Emphasis on concepts and concrete examples and computations, not complicated proofs. Prereq: Math 340 or 341 or consent of instructor. Closed to students who have credit for Math 541
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MATH 443 Applied Linear Algebra Credits: 3
Review of matrix algebra. Simultaneous linear equations, linear dependence and rank, vector space, eigenvalues and eigenvectors, diagonalization, quadratic forms, inner product spaces, norms, canonical forms. For students whose main field of interest is not pure mathematics. Discussion of numerical aspects and applications in the sciences. Prereq: MATH 320 or 340 or 341 or 375
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MATH 461 College Geometry I Credits: 3
An introduction to Euclidean or non-Euclidean geometry at the college level. Prereq: MATH 234 or (MATH 222 and MATH/COMP SCI 240) or MATH 375
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MATH 471 Mathematics for Secondary School Teachers Credits: 3
This is a capstone course for future middle and high school teachers, drawing connections between higher mathematics and school mathematics. Prereq: Math 341 or Math 375 or Math 421, and Math 461
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MATH 473 History of Mathematics Credits: 3
An historical survey of the main lines of mathematical development. Prereq: Cons inst
L&S Breadth: Humanities or Nat Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MATH 475 Introduction to Combinatorics Credits: 3
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MATH 490 Undergraduate Seminar Credits: 1 - 3
Problem solving techniques. Prereq: So st and cons inst
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MATH 491 Topics in Undergraduate Mathematics Credits: 3
Topics will vary. Prereq: Math 223 or 234 & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MATH 513 Numerical Linear Algebra Credits: 3
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MATH 514 Numerical Analysis Credits: 3
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MATH 519 Ordinary Differential Equations Credits: 3
Provides a rigorous introduction to ordinary differential equations and dynamical systems. Intended for math majors and advanced (or graduate) students in other disciplines. Prereq: Math 319 or 320 or 340, & Math 421 or 521; or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
MATH 521 Analysis I  Credits: 3  
The real numbers, elements of set theory, metric spaces and basic topology, sequences and series, limits, continuity, differentiation, integration, sequences and series of functions, uniform convergence.  Prereq: MATH 341 or 375 or 421  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 522 Analysis II  Credits: 3  
Special functions, power series, Fourier series, approximation, contraction principle, characterizations of compactness in metric spaces, applications to differential equations. Differential calculus in normed spaces, including implicit and inverse function theorems. Course is essential for graduate work in mathematics. Prereq: Math 521, a course in linear algebra (can be taken concurrently) or cons inst  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 525 Linear Programming Methods  Credits: 3  
Real linear algebra over polyhedral cones; theorems of the alternative for matrices. Formulation of linear programs. Duality theory and solvability. The simplex method and related methods for efficient computer solution. Perturbation and sensitivity analysis. Applications and extensions, such as game theory, linear economic models, and quadratic programming. Prereq: Math 443 or 320 or 340 or cons inst  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 531 Probability Theory  Credits: 3  
The course is a rigorous introduction to probability theory at an advanced undergraduate level. Only a minimal amount of measure theory is used, in particular, the theory of Lebesgue integrals is not needed. It is aimed at math majors and Master's degree students, or students in other fields who will need probability in their future careers. The course gives an introduction to the basics (Kolmogorov axioms, conditional probability and independence, random variables, expectation) and discusses some classical results with proofs (DeMoivre-Laplace limit theorems, the study of simple random walk on the one dimensional lattice, applications of generating functions). Prereq: MATH 375, 421, or 52  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 541 Modern Algebra  Credits: 3  
Groups, normal subgroups, Cayley's theorem, rings, ideals, homomorphisms, polynomial rings, abstract vector spaces.  Prereq: MATH 341 or MATH 375 or (MATH 421 and MATH 320) or (MATH 421 and MATH 340)  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 542 Modern Algebra  Credits: 3  
Field extensions, roots of polynomials, splitting fields, simple extensions, linear transformations, matrices, characteristic roots, canonical forms, determinants.  Prereq: Math 541  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 551 Elementary Topology  Credits: 3  
Topological spaces, connectedness, compactness, separation axioms, metric spaces.  Prereq: MATH 341 or MATH 375 or (MATH 421 and MATH 320) or (MATH 421 and MATH 340)  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 552 Elementary Geometric and Algebraic Topology  Credits: 3  
Introduction to algebraic topology. Emphasis on geometric aspects, including two-dimensional manifolds, the fundamental group, covering spaces, basic simplicial homology theory, the Euler-Poincare formula, and homotopy classes of mappings. Prereq: Math 551 and 542  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 561 Differential Geometry  Credits: 3  
Theory of curves and surfaces by differential methods. Prereq: Math 320 or 340; and Math 521  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 567 Elementary Number Theory  Credits: 3  
Fundamental theorem of arithmetic, quadratic residues and quadratic reciprocity, number-theoretic functions, certain diophantine equations, Farey fractions, continued fractions. Prereq: Math 340 or con reg  
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
MATH 570 Fundamentals of Set Theory Credits: 3
Students will be introduced to the basic concepts of Set Theory including: Set-theoretical paradoxes and means of avoiding them, sets, relations, functions, orders and well-orders, proof by transfinite induction and definitions by transfinite recursion, cardinal and ordinal numbers and their arithmetic, construction of the real numbers, the axiom of choice and its consequences. Prereq: MATH 341 or MATH 375 or MATH 376 or MATH 421
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MATH 571 Mathematical Logic Credits: 3
Basics of logic and mathematical proofs; propositional logic; first order logic; undecidability. Prereq: Math 340 or 341 or 375
L&S Breadth: Humanities or Nat Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MATH 605 Stochastic Methods for Biology Credits: 3
Intended to provide a rigorous foundation for stochastic modeling of biological systems. The mathematical emphasis is in stochastic analysis and simulation. Biological applications include epidemiological phenomena, biochemical reaction networks and population dynamics. Prereq: Math/Stat 431; Math/Stat 309 or Stat 311; or cons inst. Some basic linear algebra is also recommended
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 606 Mathematical Methods for Structural Biology Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological structures. Mathematical techniques include ordinary and partial differential equations, 3D Fourier analysis and optimization. Biological applications include protein folding, molecular dynamics, implicit solvent electrostatics, and molecular interactions. Prereq: Math 234 or 320 and (COMP SCI 301 or 302)
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

MATH 607 Topics in Mathematics Study Abroad Credits: 1 - 5
Credit is awarded to students who have completed an appropriate math course abroad at the advanced level having no direct equivalence within the math department offerings. The study abroad course must be pre-approved by the math department. Prereq: Enrollment in a resident study abroad prog & approval of the math dept
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 608 Mathematical Methods for Continuum Modeling in Biology Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological systems. The mathematical emphasis is on partial differential equations, particularly reaction-diffusion and transport equations. Biological applications include bacterial chemotaxis, spatio-temporal ecological dynamics, and cell-level reactions. Prereq: Math 322; Math 415; Math 514, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 609 Mathematical Methods for Systems Biology Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological systems. Mathematical techniques include dynamical systems and differential equations. Applications to biological pathways, including understanding of bistability within chemical reaction systems, are emphasized. Prereq: Math 340 or 341; Math 415, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

MATH 619 Analysis of Partial Differential Equations Credits: 3
This course is a rigorous introduction to the theoretical underpinnings of the basic methods and techniques in the modern theory of PDEs. It is aimed at math majors, but will also be useful to some students in the sciences, engineering and economics who feel the need for a deeper understanding of the theory of PDEs. The emphasis is on the exposure to a number of different methods of solution of PDEs and their connection to physical phenomena modeled by the equations. The goals include both learning to solve some basic types of PDEs as well as to understand the motivation behind and inner workings of the techniques involved. Prereq: a) Math 421 or Math 521 (b) A course covering basic theor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

MATH 621 Analysis III Credits: 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
MATH 623 Complex Analysis Credits: 3
Elementary functions of a complex variable; conformal mapping; complex integrals; the calculus of residues.
Prereq: Math 321 or 521
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MATH 627 Introduction to Fourier Analysis Credits: 3
Fourier series and integrals, and their applications. Prereq: Math 521
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MATH 629 Introduction to Measure and Integration Credits: 3
Lebesgue integral and measure, abstract measure and integration, differentiation, spaces of integrable functions.
Prereq: Math 522
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 632 Introduction to Stochastic Processes Credits: 3
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MATH 633 Queuing Theory and Stochastic Modeling Credits: 3
Reliability theory; coherent systems and reliability bounds. Markovian queues and Jackson networks. Steady-state behavior of general service time queues. Priority queues. Approximation methods and algorithms for complex queues. Simulation. Dynamic programming; applications to inventory and queueing. Prereq: Math, Ind Engr 632 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MATH 635 An Introduction to Brownian Motion and Stochastic Calculus Credits: 3
This course presents an introduction to Brownian motion and its application to stochastic calculus. Sample path properties of Brownian motion, Ito stochastic integrals, Ito's formula, stochastic differential equations and properties of their solutions, and various applications will be included. Prereq: Math 521 & 632
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MATH 641 Introduction to Error-Correcting Codes Credits: 3
A first course in coding theory. Codes (linear, Hamming, Golay, dual); decoding-encoding; Shannon's theorem; sphere-packing; singleton and Gilbert-Varshamov bounds; weight enumerators; MacWilliams identities; finite fields; other codes (Reed-Muller, cyclic, BCH, Reed-Solomon) and error-correction algorithms. Prereq: Math 320 or 340, and Math 541 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MATH 681 Senior Honors Thesis Credits: 3
Prereq: Senior standing & enrollment in the honors program
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 682 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 691 Undergraduate Thesis Credits: 2 - 4
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MATH 692 Undergraduate Thesis Credits: 2 - 4
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MATH 698 Directed Study Credits: 1 - 3
Prereq: Junior or Senior standing. Graded on a Cr/N basis; consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
MATH 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MATH 703 Methods of Applied Mathematics 1 Credits: 3
Study of the linear algebraic structure underlying discrete equilibrium problems. Boundary value problems for continuous equilibria: Sturm-Liouville equations, Laplace's equation, Poisson's equation, and the equations for Stokes flow. Contour integration and conformal mapping. Applications of dynamics leading to initial value problems for ODEs and PDEs. Green's functions for ODEs and introduction to asymptotic methods for ODEs, e.g. WKB analysis. Separation of variables and eigenfunction expansions for linear PDEs. Examples from physics and engineering throughout. Prereq: Math 340, 521-22, and 623 (or 623 concur), or equiv. Not open to stdts with cr for Math 701/702
Typically Offered: Occasionally

MATH 704 Methods of Applied Mathematics-2 Credits: 3
Typically Offered: Occasionally

MATH 705 Mathematical Fluid Dynamics Credits: 3
Typically Offered: Occasionally

MATH 707 Theory of Elasticity Credits: 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 709 Mathematical Statistics Credits: 4
Introduction to measure theoretic probability; derivation and transformation of probability distributions; generating functions and characteristic functions; conditional expectation, sufficiency, and unbiased estimation; methods of large sample theory including laws of large numbers and central limit theorems; order statistics. Prereq: Cons inst or one yr adv calculus and Math, Stat 431, Math, Stat 310
Typically Offered: Occasionally

MATH 710 Mathematical Statistics Credits: 4
Estimation, efficiency, Neyman-Pearson theory of hypothesis testing, confidence regions, decision theory, analysis of variance, and distribution of quadratic forms. Prereq: Stat, Math 709
Typically Offered: Occasionally

MATH 714 Methods of Computational Mathematics I Credits: 3
Development of finite difference methods for hyperbolic, parabolic and elliptic partial differential equations. Analysis of accuracy and stability of difference schemes. Direct and iterative methods for solving linear systems. Introduction to finite volume methods. Applications from science and engineering. Prereq: Comp Sci 302, 412; Math 322, 340, 521; or equiv; or cons inst
Typically Offered: Occasionally

MATH 715 Methods of Computational Mathematics II Credits: 3
Introduction to spectral methods (Fourier, Chebyshev, Fast Fourier Transform), finite element methods (Galerkin methods, energy estimates and error analysis), and mesh-free methods (Monte-Carlo, smoothed-particle hydrodynamics) for solving partial differential equations. Applications from science and engineering. Prereq: Comp Sci 302, 412; Math 322, 340, 521, 714; or equiv; or cons inst
Typically Offered: Occasionally
MATH 716 Ordinary Differential Equations Credits: 3
Existence, uniqueness, and continuous dependence theorems, linear systems, stability, singular points, and boundary value problems. Qualitative behavior of nonlinear equations, stability, Lyapunov functions, invariant manifolds, bifurcation theory, periodic orbits, and connecting orbits. Prereq: Senior (600) level analysis crse or cons inst
Typically Offered: Occasionally

MATH 721 A First Course in Real Analysis Credits: 3
A first course in real analysis concentrating on measures, integration, and differentiation and including an introduction to Hilbert spaces. Prereq: Math 522
Typically Offered: Occasionally

MATH 722 Complex Analysis Credits: 3
The basic theory of functions of one complex variable including Cauchy formula, singularities and residues, meromorphic functions, conformal mappings, harmonic functions, approximation and the nonhomogeneous d-bar equation. Prereq: Math 721; con reg in 701 or 721
Typically Offered: Occasionally

MATH 725 A Second Course in Real Analysis Credits: 3
An introduction to further topics in real analysis: Banach spaces, Fourier transforms, elements of distribution theory, and applications. Prereq: Math 721
Typically Offered: Occasionally

MATH 726 Nonlinear Optimization I Credits: 3
Theory and algorithms for nonlinear optimization, focusing on unconstrained optimization. Line-search and trust-region methods; quasi-Newton methods; conjugate-gradient and limited-memory methods for large-scale problems; derivative-free optimization; algorithms for least-squares problems and nonlinear equations; gradient projection algorithms for bound-constrained problems; and simple penalty methods for nonlinearly constrained optimization. Prereq: Familiarity with basic mathematical analysis and either Math 443 or 320; or cons inst
Typically Offered: Occasionally

MATH 727 Calculus of Variations and Related Topics Credits: 3
Introduction to some classical methods in the calculus of variations and continues on to modern direct methods. Techniques for establishing and studying minima and other critical points will be developed. Applications will be chosen from a wide variety of fields: geometry, differential equations, classical mechanics, geodesics, and optimal control theory. Background material in the areas of application will be provided. Prereq: Cons inst
Typically Offered: Occasionally

MATH 728 Integer Optimization Credits: 3
Introduces optimization problems over integers, and surveys the theory behind the algorithms used in state-of-the-art methods for solving such problems. Special attention is given to the polyhedral formulations of these problems, and to their algebraic and geometric properties. Applicability of Integer Optimization is highlighted with applications in combinatorial optimization. Key topics include: formulations, relaxations, polyhedral theory, cutting planes, decomposition, enumeration. Prereq: COMP SCI/MATH/STAT/I SY E 525
Typically Offered: Occasionally

MATH 730 Nonlinear Optimization II Credits: 3
Typically Offered: Occasionally

MATH 733 Theory of Probability I Credits: 3
An introduction to measure theoretic probability and stochastic processes. Topics include foundations, independence, zero-one laws, laws of large numbers, convergence in distribution, characteristic functions, central limit theorems, random walks, conditional expectations. Prereq: Math 629, 721, or concurrent registration in 721, or consent of instructor
Typically Offered: Occasionally
MATH 734 Theory of Probability II Credits: 3
Continuation of 831. Possible topics include martingales, weak convergence of measures, introduction to Brownian motion. Prereq: Consent of instructor
Typically Offered: Occasionally

MATH 735 Stochastic Analysis Credits: 3
Foundations of continuous time stochastic processes, semimartingales and the semimartingale integral, Ito's formula, stochastic differential equations, stochastic equations for Markov processes, application in finance, filtering, and control. Prereq: Math 431 & cons inst
Typically Offered: Occasionally

MATH 740 Enumerative Combinatorics/Symmetric Functions Credits: 3
Introductory graduate course on algebraic combinatorics. Topics: inclusion-exclusion principle, permutation statistics, sieve methods, unimodal sequences, posets, lattice theory, Mobius functions, generating functions, bases and transition matrices for symmetric functions. Young tableaux, plane partitions, polytopes, poset homology, Stanley-Reisner rings. Prereq: Math 541 & 542 or cons inst
Typically Offered: Occasionally

MATH 741 Abstract Algebra Credits: 3
The basic prerequisite for all advanced graduate courses in algebra. Usually a study of finite groups and noncommutative rings. Group theoretic topics may include: permutation groups, Lagrange's theorem, Cauchy's theorem and the Sylow theorems, solvable and nilpotent groups. Ring theoretic topics may include: Artinian rings and modules, the Wedderburn theorems, the Hopkins-Levitzki theorem, the Jacobson radical and density theorem. Prereq: Math 542 or equiv
Typically Offered: Occasionally

MATH 742 Abstract Algebra Credits: 3
Continuation of 741. Usually the study of commutative rings and fields. Ring theoretic topics may include: modules over PIDs, Noetherian rings and the Hilbert basis theorem, the Lasker-Noether theorem, the Krull intersection theorem, integrality and the Hilbert Nullstellensatz. Field theoretic topics may include: algebraic extensions, Galois theory, solvability of polynomials and classical constructability problems. Prereq: Math 741
Typically Offered: Occasionally

MATH 745 Theory of Groups Credits: 3
Usually covers a selection of topics in finite group theory including: subnormality, coprime actions, the Schur-Zassenhaus theorem, solvable and nilpotent groups, transfer theory and its applications, and normal p-complement theorems. Occasionally, the focus may be on some aspects of infinite group theory. Prereq: Cons inst
Typically Offered: Occasionally

MATH 746 Topics in Ring Theory Credits: 3
Will alternate between commutative and noncommutative ring theory. Commutative topics include localization; local rings; dimension theory; Cohen-Macaulay rings. Noncommutative topics include projective modules; injective modules; flat modules; homological and global dimension; Wedderburn and Goldie rings. Prereq: Math 741, 742 or equiv
Typically Offered: Occasionally

MATH 747 Lie Algebras Credits: 3
Lie algebras and matrix groups. Topics: tangent spaces; exponentials; Baker-Campbell-Hausdorff formula; (nilpotent, solvable, semisimple) Lie algebras; Engel's and Lie's theorems; Levi decomposition; Killing form; sl(2)-representations; root systems; Dynkin diagrams; Weyl groups; Cartan and Borel subalgebras; Serre's theorem. Prereq: Math 541 & 542 or cons inst
Typically Offered: Occasionally

MATH 748 Algebraic Number Theory Credits: 3
An introductory graduate level course on algebraic number theory. Topics: a rigorous introduction to the arithmetic of number fields; algebraic integers, geometry of numbers, Dirichlet's Unit Theorem, ideal class groups, first case of Fermat's Last Theorem; prime decompositions, Galois automorphisms. Prereq: Math 741-742 or equiv or cons inst
Typically Offered: Occasionally
MATH 749 Analytic Number Theory  Credits: 3
An introduction to (abelian) Hecke L-functions and their arithmetic applications to topics such as the distribution of primes and the study of ideal class groups.  Prereq:  Math 741-742 or equiv or cons inst
Typically Offered:  Occasionally

MATH 750 Homological Algebra  Credits: 3
A first course in homological algebra.  Topics include: complexes, cohomology, double complexes, spectral sequences; abelian categories, derived categories, derived functors; Tor and Ext, Koszul complexes; group cohomology; sheaf cohomology, hypercohomology.  Prereq:  Math 741-742 or equiv or cons inst. May be taken concurrently with Math 742
Typically Offered:  Occasionally

MATH 751 Introductory Topology I  Credits: 3
An introduction to algebraic and differential topology.  Elements of homotopy theory, fundamental group, covering spaces.  Differentiable manifolds, tangent vectors, regular values, transversality, examples of compact Lie groups.  Homological algebra, chain complexes, cell complexes, singular and cellular homology, calculations for surfaces, spheres, projective spaces, etc.  Prereq:  Math 541 and 551 or equiv
Typically Offered:  Occasionally

MATH 752 Introductory Topology II  Credits: 3
Continuation of 751.  Cohomology, Universal Coefficient Theorem, Kunneth Formula, cup and cap products, applications to manifolds, orientability, Poincare Duality.  Differential forms, integration and Stokes Theorem, De Rham Theorem.  Calculations, further duality theorems, Euler class, Lefschetz Fixed-Point Theorem.  Prereq:  Math 751 or equiv
Typically Offered:  Occasionally

MATH 753 Algebraic Topology I  Credits: 3
Higher homotopy groups, elements of obstruction theory, fibrations, bundle theory, classifying spaces, applications to smooth manifolds, differential forms, vector bundles, characteristic classes, cobordism, applications and calculations.  Prereq:  Math 752 or equiv
Typically Offered:  Occasionally

MATH 754 Algebraic Topology II  Credits: 3
Continuation of 753.  Topics include: spectral sequences and their applications, topology of Lie Groups, H-spaces, Hopf Algebras, homotopy classification of bundles, the Steenrod Algebra and its applications, introduction to generalized cohomology theories, spectra, elements of K-theory.  Prereq:  Math 753 or equiv
Typically Offered:  Occasionally

MATH 761 Differentiable Manifolds  Credits: 3
Differentiable manifolds, vector bundles, implicit function theorem, submersions and immersions, vector fields and flows, foliations and Frobenius theorem, differential forms and exterior calculus, integration and Stoke's theorem, De Rham theory, Riemannian metrics.  Prereq:  Math 522 or equiv
L&S Level:  Advanced  Typically Offered:  Occasionally

MATH 762 Differential Topology  Credits: 3
This course introduces the fundamental techniques and theorems of differential topology.  The following topics will be covered: Submersions and immersions, Jet bundles, approximation, Sard's theorem, Whitney embedding theorem, transversality, intersection theory, Poincare-Hopf theorem, isotopy, Hopf-degree theorem, Cobordism, Morse theory, classification of two-manifolds.  Prereq:  Math 761
L&S Level:  Advanced  Typically Offered:  Occasionally

MATH 763 Introduction to Algebraic Geometry  Credits: 3
Algebraic preliminaries, including local rings; valuation theory, and power series rings; geometry of algebraic varieties with emphasis on curves and surfaces.  Prereq:  Math 741-742
Typically Offered:  Occasionally

MATH 764 Introduction to Algebraic Geometry  Credits: 3
Continuation of Math 763.  Prereq:  Math 763
Typically Offered:  Occasionally
MATH 765 Differential Geometry Credits: 3
This course covers the metric properties of Riemannian manifolds. The following topics will be covered: Vector bundles and connections, Riemannian metrics, submanifolds and second fundamental form, first variation of arc length, geodesics, Hopf-Rinow theorem, second variation of arc length, Jacobi fields and index lemmas, Bonnet-Meyer theorem, Rauch comparison theorem, spaces of constant curvature, Hodge-de Rham theory. Prereq: Math 761
L&S Level: Advanced  Typically Offered: Occasionally

MATH 770 Foundations of Mathematics Credits: 3
First-order logic syntax and semantics, Completeness and Compactness Theorems, Lowenheim-Skolem Theorem, computable and computably enumerable sets, Incompleteness Theorem, axioms of Zermelo-Fraenkel set theory with choice, ordinal and cardinal arithmetic. Prereq: Graduate or professional standing
Typically Offered: Occasionally

MATH 771 Set Theory Credits: 3
Martin's Axiom, Suslin and Aronszajn trees, diamond principle, absoluteness and reflection, constructible universe, and one-step forcing constructions. Prereq: Math 770
Typically Offered: Occasionally

MATH 773 Computability Theory Credits: 3
Turing degree and jump, strong reducibilities, arithmetic hierarchy, index sets, simple and (hyper)hypersimple sets, easy forcing arguments in computability theory, finite and infinite injury, Friedberg-Muchnik and Sacks Splitting Theorem, Sacks Jump and Sacks Density Theorems, computable ordinals. Prereq: Cons inst
Typically Offered: Occasionally

MATH 776 Model Theory Credits: 3
Typically Offered: Occasionally

MATH 777 Nonlinear Dynamics, Bifurcations and Chaos Credits: 3
Advanced interdisciplinary introduction to qualitative and geometric methods for dissipative nonlinear dynamical systems. Local bifurcations of ordinary differential equations and maps. Chaotic attractors, horseshoes and detection of chaos. Prereq: Cons inst
Typically Offered: Occasionally

MATH 790 Masters Thesis Credits: 1 - 3
This course is intended for students who work on a Master's thesis under the supervision of a faculty member. Prereq: Enrollment in the Foundations of Advanced Studies option of the department's Master's program, and consent of instructor
Typically Offered: Fall, Spring, Summer

MATH 801 Topics in Applied Mathematics Credits: 3
Selected topics in applied mathematics, applied analysis or numerical analysis and scientific computing. Prereq: Cons inst
Typically Offered: Occasionally

MATH 803 Experimental Design I Credits: 3
Summary of matrix algebra required, theory of estimable functions, incomplete blocks, balanced incomplete block designs, partially balanced incomplete block designs. Prereq: Stats 310 or cons inst
Typically Offered: Occasionally

MATH 805 Special Functions Credits: 3
Special functions arising from mathematics, physics, and engineering, their series and integral representations, differential and other functional equations, generating functions, and orthogonality. Prereq: Cons inst
Typically Offered: Occasionally
MATH 807 Dynamical Systems Credits: 3
Treats the qualitative behavior of continuous and discrete dynamical systems, including Hamiltonian systems of differential equations. Typical topics include periodic and almost periodic solutions, the fixed point theorem of Poincare and Birkhoff, invariant curves and Kam theory, celestial mechanics, and chaotic behavior. Prereq: Cons inst
Typically Offered: Occasionally

MATH 812 Advanced Methods of Applied Mathematics Credits: 3
Differential equations; asymptotic methods in complex analysis; problems of matching; integral transforms; integral equations; introduction to spectral theory; calculus of variations; tensor analysis. Prereq: Cons inst
Typically Offered: Occasionally

MATH 819 Partial Differential Equations Credits: 3
Classical theory of partial differential equations, together with an introduction to the modern theory based on functional analysis. Prereq: Cons inst
Typically Offered: Occasionally

MATH 820 Partial Differential Equations Credits: 3
Continuation of Math 819. Prereq: Math 819
Typically Offered: Occasionally

MATH 821 Advanced Topics in Real Analysis Credits: 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 823 Advanced Topics in Complex Analysis Credits: 3
Several complex variables. Basic several complex variables or more special topics. Prereq: Cons inst
Typically Offered: Occasionally

MATH 825 Selected Topics in Functional Analysis Credits: 3
Topics will vary and may include spectral theory, nonlinear functional analysis or abstract harmonic analysis. Prereq: Cons inst or Math 722
Typically Offered: Occasionally

MATH 826 Advanced Topics in Functional Analysis and Differential Equations Credits: 3
Continuation of Math 825. Prereq: Cons inst
Typically Offered: Occasionally

MATH 827 Fourier Analysis Credits: 3
Introduction to Fourier analysis in Euclidean spaces and related topics that may include singular and oscillatory integrals and trigonometric series. Prereq: Cons inst
Typically Offered: Occasionally

MATH 828 Advanced Topics in Harmonic Analysis Credits: 3
Continuation of Math 827. Advanced topics related to research in harmonic analysis. Prereq: Cons inst
Typically Offered: Occasionally

MATH 833 Topics in the Theory of Probability Credits: 3
Topics in probability and stochastic processes. Prereq: Cons inst
Typically Offered: Occasionally

MATH 837 Topics in Numerical Analysis Credits: 3
From advanced areas. Contents may vary. Prereq: Cons inst
Typically Offered: Occasionally

MATH 842 Topics in Applied Algebra Credits: 3
Applied topics with emphasis on algebraic constructions and structures. Examples include: algebraic coding theory; codes (algebraic-geometric, convolutional, low-density-parity-check, space-time); curve and lattice based cryptography; watermarking; computer vision (face recognition, multiview geometry). Prereq: Cons inst
Typically Offered: Occasionally
MATH 843 Representation Theory Credits: 3
Introduction to the representation theory of Lie groups and their combinatorics. Universal enveloping algebras, highest weight modules, induction, restriction, weights, characters, multiplicity formulas, tensor products, Shapovalov forms, filtrations, Kazhdan-Zetlin patterns, Littelmann paths. Prereq: Cons inst
Typically Offered: Occasionally

MATH 844 Arithmetic Geometry Credits: 3
An introduction to arithmetic geometry with emphasis on arithmetic of elliptic curves. Prereq: Consent of instructor
Typically Offered: Occasionally

MATH 845 Class Field Theory Credits: 3
Introduction to local and global class field theory. Theory of local fields; local and global class field theory; complex multiplication, adeles, ideles, idele class characters, Tchebotarev's Density Theorem, CM elliptic curves, construction of class fields of imaginary quadratic fields. Prereq: Math 748 or 749 or cons inst
Typically Offered: Occasionally

MATH 846 Topics in Combinatorics Credits: 3
Topics in algebraic combinatorics such as (but not limited to) association schemes, hypergeometric series, classical orthogonal polynomials, codes, lattices, invariant theory, alternating sign matrices and domino tilings, statistical mechanical models, 6j-symbols, buildings and diagram geometries, matroids. Prereq: Cons inst
Typically Offered: Occasionally

MATH 847 Topics in Algebra Credits: 3
Topics may include: Lie groups, algebraic groups, Chevalley groups, simple groups and associated geometries, group cohomology, group rings, Hopf algebras, enveloping algebras, quantum groups, infinite-dimensional Lie algebras, Hecke algebras, automorphic forms, Galois representations, zeta and L-functions, abelian varieties. Prereq: Cons inst
Typically Offered: Occasionally

MATH 848 Advanced Topics in Number Theory Credits: 3
This is an advanced graduate topic course in number theory. Topics will vary. Target audience: Advanced graduate students in number theory, representation theory, and algebraic geometry. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

MATH 849 Automorphic Forms Credits: 3
Classical and/or modern theory of automorphic forms. Representation theory of GL(2). Prereq: Graduate or professional standing
Typically Offered: Fall, Summer

MATH 851 Topics in Geometric Topology Credits: 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 853 Topics in Algebraic Topology Credits: 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 856 Topics in Differential Topology Credits: 3
The theory of differential manifolds such as differential forms and de Rham theorem, cobordism groups, Lie groups, homogeneous spaces, fiber bundles, characteristic classes. Prereq: Cons inst
Typically Offered: Occasionally

MATH 863 Advanced Topics in Algebraic Geometry Credits: 3
Geometry of several complex variables; algebraic groups, abelian varieties; topological aspects of algebraic geometry, including sheaf theory and homology theory; advanced theory of local rings; intersection theory of algebraic varieties. Prereq: Graduate or professional standing
Typically Offered: Occasionally
MATH 865 Advanced Topics in Geometry Credits: 3
Selected from advanced projective geometry, non-Euclidean geometry, Riemannian geometry, distance geometry
and the geometry of convex surfaces, geometry of numbers. Prereq: Cons inst
Typically Offered: Occasionally

MATH 867 Analytic Number Theory Credits: 3
Prime number theory, prime number theory for arithmetic progressions, additive number theory, density theorems.
Prereq: Cons inst
Typically Offered: Occasionally

MATH 873 Advanced Topics in Foundations Credits: 3
From all areas of mathematical logic. Prereq: Cons inst
Typically Offered: Occasionally

MATH 903 Seminar in Mathematics Education Credits: 1 - 3
Prereq: Graduate or professional standing
Typically Offered: Occasionally

MATH 921 Seminar in Analysis Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 941 Seminar-Algebra Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 951 Seminar in Topology Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 967 Seminar in Number Theory Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 975 Seminar-The Foundations of Mathematics Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 990 Reading and Research Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MATH 991 Seminar in Applied Mathematics Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MEDIEVAL STUDIES

MEDIEVAL 112 The World of Late Antiquity (200-900 C.E.) Credits: 4
History of the Mediterranean World from the late Roman Empire to the development of distinct European,
Byzantine and Islamic civilizations (ca. 200-900 CE). Special attention will be paid to the rise and development of
Christianity and Islam. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

MEDIEVAL 215 Life in the Middle Ages: An Inter-Departmental Course Credits: 3 - 4
An introduction to the life and culture of the Middle Ages with lectures from members of the departments offering
courses within the Medieval Studies Program. Prereq: So st
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
MEDIEVAL 235 The World of Sagas Credits: 3
The Icelandic sagas viewed in their social, cultural, and literary contexts. An introduction to one of the greatest bodies of vernacular literature of the early Middle Ages. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

MEDIEVAL 253 Literature in Translation: Dante's Divine Comedy Credits: 3
Prereq: So st or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MEDIEVAL 309 The Crusades: Christianity and Islam Credits: 3 - 4
An examination of the Crusades from both Christian and Islamic perspectives; the historical, social, and religious context and significance of the Crusades for both Christians and Muslims. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MEDIEVAL 312 The Medieval Church Credits: 3 - 4
The course covers the formation and development of exxlesiastical institutions and religious life in Western Europe from the fourth century to the Protestant Reformation. Prereq: Open to Fr with cons inst
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MEDIEVAL 313 Introduction to Byzantine History and Civilization Credits: 3 - 4
Topical consideration of the entire scope of the history of the Byzantine Empire, from the fourth to the fifteenth centuries, and selected aspects of its culture. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MEDIEVAL 314 Problems in Byzantine History and Civilization Credits: 3 - 4
Intensive study of specific areas of the Byzantine Empire's history and culture, selected by agreement between instructor and students, stressing individual research efforts. Prereq: So st
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MEDIEVAL 318 Medieval Social and Intellectual History, 1200-1450 Credits: 3 - 4
Emphasis on social change and intellectual developments. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MEDIEVAL 322 Ancient and Medieval Science Credits: 3
Scientific ideas and institutions from the beginnings of Greek philosophy to the Renaissance. Prereq: Jr st or cons inst. Grads must enroll concurrently in Hist Sci 622
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MEDIEVAL 342 In Translation: Mythology of Scandinavia Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MEDIEVAL 345 In Translation: The Scandinavian Tale and Ballad Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MEDIEVAL 346 In Translation: The Icelandic Sagas Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MEDIEVAL 351 Arthurian Legend and Literature Credits: 3
An examination of the evolution of the legend of King Arthur from its historical beginnings through medieval romance up to modern manifestations, including film. Prereq: 6 cr of intro lit
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MEDIEVAL 368 The Bible in the Middle Ages Credits: 3
Medieval Bible and its shaping effect on medieval culture. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
MEDIEVAL 407 Old Norse Credits: 3
Reading of texts from the Sagas and Eddas, with comparative study of linguistic structure and literary style.
Prereq: Grad st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MEDIEVAL 408 Old Norse Credits: 3
Continuation of 407  Prereq: Scand St 407 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MEDIEVAL 409 Survey of Old Norse-Icelandic Literature Credits: 3
Eddic and skaldic poetry; homilies and saints' lives, kings' sagas, sagas of the Icelanders; mythical-heroic sagas and romances; rimur.  Prereq: Grad st or cons inst; or Scand St/Medieval 407
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MEDIEVAL 414 Literatura de la Edad Media Castellana (ss. XII-XV) Credits: 3
The study of a particular author, work, topic, or literary genre of the Middle Ages and/or Early Renaissance (through 15th century): Poema de mio Cid, mester de juglaria, Libro de buen amor, mester de clerecia, El conde Lucanor, La Celestina, etc.  Prereq: SPANISH 223 and 224. Graduate students may not enroll
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MEDIEVAL 415 Topics in Medieval Art Credits: 3
An advanced lecture course, covering specific aspects of Medieval art. Topics may include: "Death and the Afterlife in Medieval Art"; "Civic Art and Architecture and Public Space in Medieval Italy"; "Rome in the Middle Ages"; "Pilgrimage & the Cult of the Saints in Medieval & Byzantine Art."  Prereq: Jr st & one Art Hist crse at 200 level and one at 300 level, or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MEDIEVAL 423 Topic in Medieval Literature and Culture Credits: 3
Subject differs each year.  Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MEDIEVAL 424 Medieval Drama Credits: 3
An introduction to the dramatic traditions of medieval England, from early church rituals performed inside quiet monasteries in the tenth century to the elaborate and often raucous urban guild cycles and morality plays of the fifteenth, and with special attention to the significance of spirituality, work, and play in medieval culture.  Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MEDIEVAL 425 Medieval Romance Credits: 3
An introduction to one of the first forms of narrative fiction, covering tales of adventure, magic, courtly love, and King Arthur from the twelfth through the fifteenth century.  Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MEDIEVAL 426 Chaucers Courtly Poetry Credits: 3
An introduction to the poetry of the most famous and influential medieval English poet, from his short lyrics on love through his dream visions of talking birds and castles built on ice to the historical romance Troilus and Criseyde. Readings will be in the original Middle English; no prior experience with the language is required. Students who have taken English 368 prior to fall 2014 may not enroll in this course.  Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MEDIEVAL 427 Chaucer's Canterbury Tales Credits: 3
An introduction to the most famous and influential medieval English poet through his best-known work and its playful and profound responses to some of the most pressing literary, social, political, and spiritual issues of his time. Readings will be in the original Middle English; no prior experience with the language is required. Students who have taken English 367 prior to fall 2014 may not enroll in this course.  Prereq: 6 credits of introductory literature
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MEDIEVAL 430 The Vikings  Credits: 4
Within a historical framework, a thorough introduction to the culture, literature, and religion of the Vikings.
Prereq:  Jr St or cons inst. Knowledge of a Scand lang is not required
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

MEDIEVAL 440 Francis of Assisi: Literature and the Arts  Credits: 3
"Francis of Assisi: Literature and the Arts." Focus on accounts of St. Francis's life as written by medieval authors (e.g., Bonaventure of Bagnoregio, Thomas of Celano, the Franciscan Brother Leo) as well as works written by Francis himself. Examination of the relevance of Francis's teachings to contemporary reflections regarding relationships with the Other, the environment and animals. Discussion of issues related to religion, politics, bio-politics and environmental studies.  Prereq:  Sophomore standing or above
L&S Breadth:  Literature  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

MEDIEVAL 444 Kalevala and Finnish Folk-Lore  Credits: 4
Kalevala and the oral literature of Finland.  Prereq:  Jr st or cons inst
L&S Breadth:  Literature  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

MEDIEVAL 446 Celtic-Scandinavian Cultural Interrelations  Credits: 3
Examination of shared traditions and historical connections between the North and Northwest of Europe. Readings of medieval and pre-modern Scandinavian, Scottish, Welsh and Irish sagas, histories, telek. Discussion of the role of folklore in modern Celtic and Scandinavian societies.  Prereq:  So st or above required, or cons inst.
L&S Breadth:  Humanities  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

MEDIEVAL 503 Survey of Medieval Literature  Credits: 3
Readings of texts, lexicography, and history.  Prereq:  Grad st
L&S Breadth:  Literature  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

MEDIEVAL 504 Survey of Medieval Literature  Credits: 3
Continuation of 503.  Prereq:  Grad st
L&S Breadth:  Literature  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

MEDIEVAL 520 Old English  Credits: 3
The elements of Old English grammar with selected readings. Students who have taken English 320 prior to fall 2014 may not enroll in this course.  Prereq:  6 credits of introductory literature
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

MEDIEVAL 521 Advanced Old English Literature  Credits: 3
An intensive study of a major work or works of Old English, usually focusing on either Beowulf or the poems of a single manuscript. Line-by-line translation of the text will be supplemented by discussion of related issues (whether linguistic, thematic, or contextual) as well as by readings from relevant critical literature. Primary texts will be read in Old English.  Prereq:  Completion of one of the following: English 520 taken Fall 2014 or later; English 320 taken prior to Fall 2014
L&S Breadth:  Literature  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

MEDIEVAL 522 Middle English Language  Credits: 3
The English language and its development in selected texts from the Norman Conquest to Chaucer. Students who have taken English 321 prior to fall 2014 may not enroll in this course.  Prereq:  522 completed Fall 2014 or later, or 320 completed prior to Fall 2014
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

MEDIEVAL 541 Old Spanish  Credits: 3
Historical Spanish phonology, morphology, and syntax, with application to analysis of medieval Spanish texts. Some attention to paleographic and editorial problems.  Prereq:  Grad st
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

MEDIEVAL 550 Advanced Interdisciplinary Studies in Medieval Civilization  Credits: 3
An integrated treatment of a specific theme, to be announced by a group of specialists in different fields.  Prereq:  Jr st or cons inst
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally
MEDIEVAL 562 Byzantine Medicine and Pharmacy Credits: 3
Byzantine and Islamic medicine and drug lore from Oribasius to the beginnings of the Italian Renaissance (c. 350 - c. 1400 A.D.). Prereq: Jr or Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MEDIEVAL 563 Mediaeval Latin Credits: 3
Prereq: Latin 204 or appropriate placement score
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MEDIEVAL 611 Survey of German Literature to 1700 Credits: 3
Representative works from the oldest records to the eighteenth century. Prereq: Sr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MEDIEVAL 651 Introduction to Middle High German Credits: 3
Prereq: Advanced knowledge of German
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MEDIEVAL 659 Dante's Divina Commedia Credits: 3
Lectures on Dante's life and times, reading Divine Comedy, commentary, discussion, reports. Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MEDIEVAL 660 Dante's Divina Commedia Credits: 3
Continuation of 659  Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MEDIEVAL 671 Il Duecento Credits: 3
I: A systematic study of the earliest literary texts in Italy; the rise of the love lyric among the Sicilian poets; representative narrative works. II: The development of the lyric from Guittone d'Arezzo to the poets of the Dolce Stil Nuovo (Guinizzelli, Cavalcanti, Dante). Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MEDIEVAL 672 Il Duecento Credits: 3
Continuation of 671  Prereq: Italian 321-322 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MEDIEVAL 699 Directed Study Credits: 1 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MEDIEVAL 701 Introduction a L Ancien Francais Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

MEDIEVAL 703 La Litterature Francaise du XIV Et du XV Siecle Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

MEDIEVAL 704 La Litterature Francaise du XIV et du XV Siecle Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

MEDIEVAL 705 La Litterature Francaise des Debutus Jusqu a La Fin du XIII Siecle Credits: 3
Prereq: Grad st or cons of undergrad adv
Typically Offered: Occasionally

MEDIEVAL 718 Topics in Medieval Spanish Literature Credits: 3
An advanced topics course focusing on themes, particular authors, individual works, or literary genres in medieval Spanish literature. Prereq: Grad st
Typically Offered: Occasionally

MEDIEVAL 720 Selected Topics in Medieval History Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally
MEDIEVAL 755 Old Germanic Languages  Credits: 3
Old High German, Old Saxon, and Gothic on a rotating basis; may be repeated for different languages. Prereq: Cons inst or German 651
Typically Offered: Occasionally

MEDIEVAL 803 Topics in Medieval Literature Credits: 3
Prereq: Graduate standing & consent of English department Graduate advisor
Typically Offered: Occasionally

MEDIEVAL 841 Seminar: Libro de Buen Amor, Celestina, Corbacho Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

MEDIEVAL 842 Seminar-Medieval Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

MEDIEVAL 939 La Litterature Medievale Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

MOLECULAR BIOLOGY

MOL BIOL 681 Senior Honors Thesis Credits: 3
Prereq: Sr st & cons honors advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MOL BIOL 682 Senior Honors Thesis Credits: 3
Prereq: Sr st & cons honors advisor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MOL BIOL 686 Senior Honors Seminar in Molecular Biology Credits: 1
A seminar on the origins, present frontiers, and future prospects of molecular biology. Students will read, write about, and discuss papers from the original literature. Social and ethical issues related to technologies based on molecular biology are considered. Prereq: Sr st; juniors may register with cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MOL BIOL 691 Senior Thesis Credits: 3
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MOL BIOL 692 Senior Thesis Credits: 3
Prereq: Sr st and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MOL BIOL 699 Directed Studies in Molecular Biology Credits: 1 - 4
Individual research projects conducted under professorial supervision. Prereq: Jr or Sr st; cons inst. Graded on a lettered basis
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC

MUSIC 34 Study Abroad: Music Performance Ensemble Credits: 1
A music performing ensemble course taken in a UW-Madison resident study abroad program. Prereq: Enrollment in a UW-Madison resident study abroad program
Typically Offered: Fall, Spring, Summer

MUSIC 40 Wind Ensemble Credits: 1
Rehearsal and performance of music from wind ensemble and band literature. Open to all students by audition. Prereq: Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring
MUSIC 41 Concert Band Credits: 1
Rehearsal and performance of music from wind ensemble and band literature. Prereq: Audition and/or cons inst
Typically Offered: Fall, Spring

MUSIC 42 Varsity Band Credits: 1
Rehearsal and performance of music for athletic events. Prereq: Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 43 University Band Credits: 1
Exploration and performance of standard band literature. Open to all students; no audition required. Prereq:
Open to Fr
Typically Offered: Fall, Spring, Summer

MUSIC 50 Concert Choir Credits: 1
Choral vocal training, study and performance of concert literature. Open to all students by audition. Prereq:
Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 51 Women's Chorus Credits: 1
Choral vocal training, study and performance of concert literature. Open to all students by audition. Prereq:
Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 53 Choral Union Credits: 1
Choral vocal training, study and performance open to the entire community by audition. Prereq: Audition and/or
cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 55 Masters' Singers Credits: 1
Choral vocal training, study and performance of concert literature. Open to all students by audition. Prereq:
Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 56 Chorale Credits: 1
Choral vocal training, study and performance of concert literature. Open to all students by audition. Prereq:
Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUSIC 58 Madrigal Singers Credits: 1
Ensemble specializing in 16th- and 17th-century secular music. Open to all students and singers outside the
University by audition. Prereq: Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 59 University Chorus Credits: 1
Exploration and performance of standard choral literature. Prereq: Open to Fr. No audition
Typically Offered: Fall, Spring

MUSIC 60 All-University String Orchestra Credits: 1
Rehearsal and study of string orchestra literature at the introductory level. No audition required. Prereq: Open to
Fr
Typically Offered: Fall, Spring

MUSIC 61 Chamber Orchestra Credits: 1
Rehearsal, study and performance of early classical symphonies, opera, and concerto literature. Prereq:
Audition and/or cons inst. Open to Fr
Typically Offered: Fall, Spring

MUSIC 62 University Symphony Orchestra Credits: 1
Playing and public performance of music from symphonic repertoire. Prereq: Audition and/or cons inst. Open to
Fr
Typically Offered: Fall, Spring
MUSIC 101 The Musical Experience Credits: 3
Musical genres -- songs, opera and musical theater, chamber and orchestral music, and jazz -- in the context of social and cultural history. Prereq: Not open for credit for Music majors. Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 103 Introduction to Music Cultures of the World Credits: 2
Music in various parts of the non-Western world (Africa, Middle East, India, Southeast Asia, East Asia). Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 104 Study Abroad: Elementary Music Appreciation/Theory/History Credits: 1 - 3
An elementary-level academic course in music taken in a UW-Madison resident study abroad program. Course does not require any previous background in music. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 105 Opera Credits: 3
From Monteverdi to the present. Opera as a social and cultural phenomenon and an expression of national styles. Prereq: Not open for credit for Music majors. Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 106 The Symphony Credits: 3
Orchestral music from Haydn to present, relation to other arts. Prereq: Not open for credit for Music majors. Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 107 Music & Film Credits: 3
A survey of film music by the major film composers. Will include study of film scores by, among others, Alfred Newman, Max Steiner, Bernard Herrmann, and Ennio Morricone, as well as a discussion of current trends and film composers. In addition, there will be discussion of the contributions of composers such as Aaron Copland, Serge Prokofiev and Leonard Bernstein. The techniques and styles of film music will be explored through lectures, required listening, readings and viewing of relevant films. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

MUSIC 110 Introduction to Music Technology Credits: 2
Introduction to notation, sequencing, and digital audio softwares. Prereq: Open to music majors only (MUS, MUSC, MUSD, or dept authorization)
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 111 Elements of Music Credits: 3
Basic notation; intervals; scales and modes; rhythm, melody and harmony; writing of simple musical material; aural and visual analysis. Prereq: Not open to music majors
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 113 Music in Performance Credits: 1
Descriptive lectures on chamber music with performances by instructor and others; open to all students. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 121 Musica Practica 1 Credits: 3
Strategies for composing, understanding, and writing about music; must be taken concurrently with Music 171. Prereq: Placement test; concurrent registration in Music 171 required; concurrent registration in Music Perf 101 strongly recommended
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 122 Musica Practica 2 Credits: 3
Continuation of Music 121; must be taken concurrently with Music 172. Prereq: Music 121/171; concurrent registration in Music 172 required; concurrent registration in Music Perf 102 strongly recommended
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring
MUSIC 151 Basic Concepts of Music Theory Credits: 3
Basic tools of music theory and compositional forms. Explores development of music through general survey of musical styles. Practical application of concepts includes listening maps and simple composition projects. Includes performance opportunities in simulated real world settings. Prereq: Not open for cr for music majors. Free to Fr. Studts may receive cr for only one of the following: Music 111, 151, 351
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 152 Basic Concepts of Music 2 Credits: 3
A course on the "building blocks" of music for non-majors. It is the sequel to Basic Concepts of Music Theory, which is its prerequisite. The goal of the course is to deepen one's understanding of music through hands-on experience with its component materials: melody and harmony, rhythm and meter. It has the additional aim of increasing one's fluency in read music, broadening one's acquaintance with scores and various other musical media old and new, and improving one's skills as a listener. Students will explore basic musical concepts in a lab-like environment and solve various compositional problems and analytical puzzles. Prereq: MUSIC 111 or MUSIC 151, not open to music majors.
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 171 Musica Practica: Aural Skills 1 Credits: 1
Prereq: Must be taken concurrently with Music 121
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MUSIC 172 Musica Practica: Aural Skills 2 Credits: 1
Prereq: Music 121; must be taken concurrently with Music 122. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 201 Music and Society Credits: 2
Music during defined historical periods with emphasis on political and social contexts. May concentrate on a specific era or geographical area. Knowledge of music not required. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MUSIC 204 Study Abroad: Intermediate Music Theory or History Credits: 1 - 3
An intermediate-level academic course in music taken in a UW-Madison resident study abroad program. Course must be taught at an intermediate level as determined by the School of Music based on prerequisites and/or course syllabus. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 205 The Big Bands Credits: 2
A study of significant dance orchestras from 1920 to 1950: development of style and influence on popular musical taste. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MUSIC 206 The Legendary Performers Credits: 2
A survey of pioneer performers who influenced popular musical taste from 1920 to 1950. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 211 Survey of the History of Western Music Credits: 3
Introduction to development of music in the European tradition. Prereq: Music 122 or 281
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MUSIC 212 Survey of the History of Western Music Credits: 3
Continuation of 211. Prereq: Music 211
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 221 Musica Practica 3 Credits: 3
Continuation of Music 122; must be taken concurrently with Music 271. Prereq: Music 122/172; concurrent registration in Music 271 required; concurrent registration in Music Perf 103 strongly recommended
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
MUSIC 222 Musica Practica 4 Credits: 3
Continuation of Music 221; must be taken concurrently with Music 272. Prereq: Music 221/271; concurrent registration in Music 272 required; concurrent registration in Music Perf 104 strongly recommended
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 229 Jazz Theory & Composition Credits: 3
Introduction to the applied theory of functional tonal and modal jazz harmony; analysis of song forms from the standard jazz repertoire; study of reharmonization techniques, chord substitution, and types of chord voicings; principles of melodic writing and motivic development, jazz counterpoint, and voice-leading considerations; and writing for common instruments in jazz ensembles. Students will analyze compositions from the standard jazz repertoire and apply the principles studied to create their own compositions for small jazz ensemble. Prereq: MUSIC 122 and MUSIC 172
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 236 Bascom Course Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr.
General Education: COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 252 Introduction to Conducting and Pedagogy Credits: 2
This course will introduce students to the basic elements in conducting. Students will learn elementary conducting skills including technique, score study, rehearsal preparation, rehearsal structure, private studio construction, teaching techniques, and professional marketing. Prereq: Music 222, 272, 211, 212
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 253 Conducting Credits: 2
Conducting techniques, emphasis on practical application to vocal and instrumental groups. Prereq: Cons inst or Music 122
Typically Offered: Fall

MUSIC 254 Conducting Credits: 2
Continuation of 253. Prereq: Music 253
Typically Offered: Spring

MUSIC 256 University Opera Credits: 1 - 2
Opera role: preparation, rehearsal and performance in University opera production. Course credit available to singers cast by audition in major or minor roles. Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 257 Opera Workshop Credits: 2
Performance of scenes from standard operas, including singing, accompanying, and dramatic action; instruction in voice projection, posture, and gesture; problems of staging, lighting, costuming, and scenery. Prereq: Cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 262 Jazz Ensemble Credits: 1
Assignments in performing ensemble literature. Prereq: Audition and/or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 264 Ensemble: Wisconsin Singers Credits: 1
The training of singers and musicians for show choir. Prereq: Audition; cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 265 Ensemble-Woodwind Credits: 1
Assignments in performing ensemble literature. Prereq: Cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 266 Black Music Ensemble Credits: 1
Assignments in performing ensemble literature. Prereq: Audition and/or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
MUSIC 267 Ensemble-Brass Credits: 1
Assignments in performing ensemble literature. Prereq: Cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 268 Ensemble-Percussion Credits: 1
Assignments in performing ensemble literature. Prereq: Cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 269 Ensemble-String Credits: 1
Assignments in performing ensemble literature. Prereq: Cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 270 Ensemble-Guitar Credits: 1
Rehearsal, coaching and preparing guitar literature for performance of duos, trios, and quartets. Musicians other than guitarists are permitted to enroll. Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 271 Musica Practica: Aural Skills 3 Credits: 1
Prereq: Music 122; must be taken concurrently with Music 221
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MUSIC 272 Musica Practica: Aural Skills 4 Credits: 1
Prereq: Music 221; must be taken concurrently with Music 222
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 273 Contemporary Chamber Ensemble Credits: 1
Assignments in performing ensemble literature. Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 300 Introduction to Music Education Credits: 2
Introduction to the field of music education, including philosophy, history, and current practices and trends. Survey of music education in and out of schools as situated within diverse, pluralistic communities. Prereq: Concurrent enrollment in CURRIC/MUSIC 303
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 301 Music Learning and Teaching 1 Credits: 2
The learning and teaching of music at the elementary and middle school levels. Prereq: Successful completion of CURRIC/MUSIC 300. Admission to the music education certification program. Concurrent enrollment in CURRIC/MUSIC 337
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MUSIC 302 Music Learning and Teaching 2 Credits: 2
The learning and teaching of music at the high school level. Prereq: Successful completion of CURRIC/MUSIC 301 with a grade of "C" or higher. Concurrent enrollment in CURRIC/MUSIC 337
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 303 Fieldwork in Music Communities Credits: 1
Fieldwork in music communities in the Madison area. Prereq: Must be taken concurrently with CURRIC/MUSIC 300
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

MUSIC 304 Composition, Arrangement, and Orchestration for the Music Teacher Credits: 2
Introduction to the teaching of musical composition, arrangement, and orchestration. Special emphasis on how music technologies interact with conceptions of composition, arrangement, and orchestration; implications for music learning and teaching. Prereq: Successful completion of MUS-PERF 104 or equivalent
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 305 Popular Music in the USA: 1920-1950 Credits: 2
Survey of the works of Gershwin, Rodgers, Kern, Porter, and others; nature of the music; semantics of the lyrics, and popular song as the reflection of a social era. Prereq: Jr st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Summer
MUSIC 306 Great Composers Credits: 3
Examination of the life, cultural background, and works of a major figure in Western music history. Some familiarity with music is assumed; ability to read music not required. Prereq: So st & one university-level course in Music
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 308 Black Music (1920-Present): Rhythm Section and Combos Credits: 2
Introduction to the history of jazz; traces Black American music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 309 Black Music (1920-Present): Vocalist/Trombone/Misc Instrumental Credits: 2
Introduction to the history of jazz; traces Black American music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 310 Black Music (1920-Present): The Trumpet Credits: 2
Introduction to the history of jazz; traces Black American Music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 311 Black Music (1920-Present): The Saxophone Credits: 2
Introduction to the history of jazz; traces Black American music from African origins. Prereq: So st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 318 Cultural Cross Currents: West African Dance/Music in the Americas Credits: 3
The influence of traditional West African dance/music heritage in historical, artistic, social contexts in the development of new hybrid forms of music/dance created by cross-pollination of cultures of Africans, Europeans and indigenous peoples in the New World. Prereq: Sophomore standing
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 319 Topics in Music and Ethnicity in the United States Credits: 3
Explores music of ethnic groups in the U.S., including that of marginalized minorities, in its cultural context. Topics may include the music of African American, Asian American, Native American and Jewish communities. Prereq: Repeatable for credit with different topic
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 331 Jazz Improvisation Credits: 3
Theoretical concepts, development of aural skills, and analysis procedures related to the jazz idiom. Prereq: Demonstrated performance ability on instrument; cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 332 Jazz Improvisation Credits: 3
Continuation of 331. Prereq: Demonstrated performance ability on instrument; cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 337 Practicum in Teaching Music Credits: 1
Observation and participation in K-12 music education settings. Prereq: Admission to Music Education; concurrent registration in CURRIC/MUSIC 301 or CURRIC/MUSIC 302
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 340 Pedagogy Credits: 1 - 2
Pedagogical methods for applied music offered on all instruments and voice by appropriate applied staff. Survey of music, methods, and materials. Prereq: 400 level applied study or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 344 Teaching Vocal Styles in the Music Classroom Credits: 1
Introduction to the teaching and learning of diverse vocal styles. Special emphasis on what makes each style distinct, as well as the acquisition practices associated with each style. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 345 Practicum in String Pedagogy Credits: 2
Provides opportunity for advanced undergraduate students to teach privately or in small groups under faculty supervision. Prereq: Music 340 or equiv, or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
MUSIC 346 Repertoire Credits: 1 - 2
A comprehensive study of sources, analysis, and style of repertoire for a particular instrument(s) or voice(s).
Prereq: Jr st & cons inst
Typically Offered: Fall, Spring

MUSIC 351 Basic Concepts of Music Credits: 3
Offers a comprehensive approach to music. Students learn the basic tools of music theory, the basic compositional forms used in music, and a general survey of musical styles. Prereq: Open only to university special stdts with cons inst. Stdts may receive cr for only one of the following: Music 111, 121, 151, 351
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 354 Teaching Music Credits: 3
Development of musical skills and understandings. Ways of including music in the curriculum. Prereq: EED and completion of previous sequence coursework
Typically Offered: Fall, Spring

MUSIC 361 Non-Western Music Performance-Study Groups Credits: 1
Study of non-Western musical traditions through performance: Javanese gamelan and Kiganda xylophone.
Prereq: Cons inst; may be repeated
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 400 Music Cultures of the World: Africa, Europe, the Americas Credits: 3
Explores the performance, transmission, and consumption of traditional and popular musics of Africa, Europe, and the Americas. Employs musical-analytic and critical approaches to trace transnational musical circulation.
Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 401 Musical Cultures of the World Credits: 3
Survey of selected musical cultures in Southeast Asia, Africa, East Asia, the Middle East, and the folk music of Europe and the Americas. Classification of musical instruments, theoretical systems, scale structures, role of music in society, relationship of music to other arts in their cultures. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 402 Musical Cultures of the World Credits: 3
Continuation of 401. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 404 Music of S.E. Asia: Tradition, Innovation, Politics, and Religion Credits: 3
Considers major musical traditions of Southeast Asia in relation to historical and contemporary contexts, emphasizing religion and politics. Covers indigenous music theories, instrumental and vocal practices, cross-cultural interactions, broadcast and recording media representations, and role of music in religious and political dynamics.
Prereq: So st & cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 405 Seminar: Cultural Study of Music Credits: 3
Explores various topics in music research from the perspective of contemporary cultural theory and history. Develops skills in critical analysis of music and culture, drawing from literatures in postcolonial studies, critical race theory, studies of empire, colonialism, and capitalism.
Prereq: Consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 409 Student Teaching in General and Vocal Music Credits: 6 - 12
Supervised student teaching in general and vocal K-12 settings.
Prereq: Successful completion of all requirements for student teaching. Department consent
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 410 Student Teaching in General and Instrumental Music Credits: 6 - 12
Supervised student teaching in general and instrumental K-12 settings.
Prereq: Successful completion of all requirements for student teaching. Department consent
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prereq</th>
<th>L&amp;S Breadth</th>
<th>L&amp;S Level</th>
<th>L&amp;S Credit</th>
<th>Typically Offered</th>
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</thead>
<tbody>
<tr>
<td>MUSIC 411</td>
<td>Survey of Music in the Middle Ages</td>
<td>3</td>
<td>Major genres and composers of monophonic and polyphonic music, sacred and secular in Western Europe and England (ca. 7th-14th centuries). Prereq: Music 211-212 or Grad st or cons inst</td>
<td></td>
<td>Humanities</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Occasionally</td>
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<tr>
<td>MUSIC 412</td>
<td>Survey of Music in the Renaissance</td>
<td>3</td>
<td>Major genres and composers of sacred and secular music (ca. 15th-16th centuries). Prereq: Music 211-212 or Grad st or cons inst</td>
<td></td>
<td>Humanities</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Occasionally</td>
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<tr>
<td>MUSIC 413</td>
<td>Survey of Music in the Baroque Era</td>
<td>3</td>
<td>Major genres and composers in Western Europe (ca. 1600-1750). Prereq: Music 211-212 or Grad st or cons inst</td>
<td></td>
<td>Humanities</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUSIC 414</td>
<td>Survey of Music in the Classic Era</td>
<td>3</td>
<td>Major genres and composers in Western Europe (ca. 1750-1827). Prereq: Music 211-212 or Grad st or cons inst</td>
<td></td>
<td>Humanities</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUSIC 415</td>
<td>Survey of Music in the Romantic Era</td>
<td>3</td>
<td>Major genres and composers in Europe (ca. 1820-1910). Prereq: Music 211-212 or Grad st or cons inst</td>
<td></td>
<td>Humanities</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>MUSIC 416</td>
<td>Survey of Music in the Twentieth Century</td>
<td>3</td>
<td>Major genres and composers in Europe and the United States. Prereq: Music 211-212 or Grad st or cons inst</td>
<td></td>
<td>Humanities</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUSIC 419</td>
<td>Music in the United States</td>
<td>3</td>
<td>Explores a variety of genres within their social and historical contexts including folk songs and ballads, the Native American Pow Wow, New England psalmody, popular song repertories, musical theater and opera, concert music, blues and jazz. Prereq: Music 212 or cons inst</td>
<td></td>
<td>Intermediate/Advanced</td>
<td>Counts for LAS credit</td>
<td>Counts for LAS credit</td>
<td>Occasionally</td>
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</tbody>
</table>
MUSIC 468 Language Diction for Singing II Credits: 2
Continuation of 467. Second semester of a two-semester diction sequence for voice performance majors.
Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 469 Interdisciplinary Studies in the Arts Credits: 1 - 4
Guest artists will offer interdisciplinary courses on topics appropriate to their specializations. Prereq: Consent of department
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 497 Special Topics in Music Credits: 1 - 3
Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 499 Directed Study Credits: 1 - 3
Approval of project and assignment to staff member by Undergraduate Committee.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 500 Seminar in Global Popular Music Credits: 3
Explores various research topics relating to the history and present state of global popular music. Musical practices studied in relation to social and cultural forces, from ideas of nationhood to the global circulation of commodities; modern concepts of race to the emergence of modern western empires. Prereq: Consent of Instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 502 Figured Bass and Basso Continuo Credits: 3
Study of theory and practice of 17th and 18th-century figured bass and basso continuo realization and performance. Participants develop extemporized and written realizations that emulate the discipline, style traits, and musical vitality suggested in historical sources. No experience in working from figured bass notation is required, but course material progresses quickly to an advanced level. Both keyboard and non-keyboard music majors may enroll. Non-keyboard majors must have keyboard proficiency. Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 509 Seminar in Afro-American Music History and Criticism Credits: 3
Introduction to historical research in and critical interpretation of Afro-American music. Consideration of standard musical and critical sources. Prereq: Cons inst or Grad st
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 511 Historical Performance Practices Credits: 3
Examination of historical evidence for performance practice and its relevance to modern performances of the music of earlier eras. Prereq: Music 211 & 212, or equiv, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 513 Survey of Opera Credits: 3
Historical development of opera; investigation of main stylistic features of representative masterworks. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 515 Proseminar in Ethnomusicology Credits: 3
Introduction to ethnomusicology, including historical survey of major works in the field, classification of musical instruments, measurement of tuning systems and concepts of scale, mode and rhythm in non-Western music. Prereq: Music 401-402 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 523 Orchestration I Credits: 3
History of orchestration and arranging; study of representative works by means of scores, recordings, and attendance at rehearsals of University organizations; scoring for band, chorus, and orchestra. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 524 Orchestration II Credits: 3
Continuation of 523. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
MUSIC 535 American Folk and Vernacular Music Credits: 3
An ethnographic, historical examination of immigrant and indigenous "roots" musical genres (blues, hillbilly, powwow, polka, conjunto, etc.) in relation to technological, commercial, artistic, and socio-political forces in American life. Prereq: Jr st
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

MUSIC 539 The Folklore of Festivals and Celebrations Credits: 3
Survey of interdisciplinary literature on social/performative folklore aesthetics and environments by in-depth study of three festivals and ceremonies. Required field trips. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 540 Advanced Pedagogy Credits: 2
Advanced pedagogical methods for performance. Prereq: Grad st and/or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 541 Seminar in Choral Literature Credits: 2
Seminar in Choral Literature from Renaissance to the Present. Prereq: Consent of instructor
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUSIC 542 Choral Literature and Performance Practices of Today Credits: 2
Continuation of 541. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 543 Advanced String Pedagogy Credits: 2
Survey of contemporary and historical string pedagogy with implications for multiple teaching settings and applied research. Prereq: Cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 544 Advanced String Pedagogy Credits: 2
Continuation of 543, with emphasis on individual projects and applied research. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MUSIC 545 Practicum in Advanced String Pedagogy Credits: 2
Provides opportunity for graduate students to teach privately or in small groups under faculty supervision.
Prereq: Music 543 or equiv or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 546 String Literature Credits: 2
Relationship of string solo, ensemble and orchestral literature to history, style, form, genre, and performance practice. Emphasis on bibliographic sources; research project required. Prereq: Sr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUSIC 548 Piano Pedagogy II Credits: 3
Exploration of appropriate materials, standard literature, pedagogical techniques, and structure for the intermediate to advanced student. Research in specialized topics. Includes laboratory observation and teaching.
Prereq: Music 547 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUSIC 550 Percussion Literature Credits: 2
This course will examine a select body of Western art music composed for percussion during the twentieth and twenty-first Centuries. Important compositional styles and repertoire will be presented and discussed with an emphasis on historical perspective and compositional technique.
Typically Offered: Fall

MUSIC 551 Class Piano Pedagogy Credits: 3
Techniques for teaching older beginners or adults in class or individual instruction, piano literature sources and references, evaluation of repertoire and analysis of methods and structure. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MUSIC 553 Advanced Conducting Seminar Credits: 2
Study/analysis of conducting techniques; score reading/interpretation of masterpieces from standard repertoire.
Topics course: repeatable. Prereq: Cons inst or Music 254
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 554 Advanced Conducting Credits: 2
Continuation of 553. Prereq: Music 254
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 556 University Opera Credits: 1 - 2
Opera role: preparation, rehearsal and performance in University opera production. Course credit available to singers cast by auditions in major or minor roles. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 557 Opera Workshop Credits: 2
Performance of scenes from standard operas or of whole operas; singing, accompanying, and dramatic action; instruction in voice projection, posture and movement; problems of staging, lighting, costume and scenery. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 558 Madrigal Singers Credits: 1
Ensemble specializing in 16th and 17th century secular music. Prereq: Grad st
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 559 Graduate Choral Union Credits: 1
Weekly rehearsals in preparation of public performance of a masterwork for chorus and orchestra at end of semester. Audition required. Prereq: Consent of instructor
Typically Offered: Fall, Spring

MUSIC 560 Practicum in Advanced Studio Teaching-Piano Credits: 1
Observation and teaching of an advanced undergraduate student under the direct supervision of a studio professor. Prereq: Music 548 or cons inst
Typically Offered: Fall, Spring

MUSIC 561 Advanced Ensemble-Piano Credits: 1
Assignments in performing ensemble literature. Open to all University students with graduate standing. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 562 Jazz Ensemble Credits: 1
Assignment in performing ensemble literature. Open to all University students with graduate standing. Prereq: Audition and/or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 565 Advanced Ensemble-Woodwind Credits: 1
Assignments in performing ensemble literature. Open to all University students with graduate standing. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 567 Advanced Ensemble-Brass Credits: 1
Assignments in performing ensemble literature. Open to all University students with graduate standing. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 568 Advanced Ensemble-Percussion Credits: 1
Assignments in performing ensemble literature. Open to all University students with graduate standing. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 569 Advanced Ensemble-String Credits: 1
Assignments in performing ensemble literature. Open to all University students with graduate standing. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
MUSIC 570 University Symphony Orchestra Credits: 1
Performance plus additional study of performance practice and orchestral literature. Open to graduate music majors only. Prereq: Audition
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 571 Chamber Orchestra Credits: 1
Rehearsal, study of performance of classical symphonic works of 19th and 20th century orchestra and concerto literature. Prereq: Audition & Grad st
Typically Offered: Fall, Spring, Summer

MUSIC 572 Advanced Ensemble-Classical Guitar Credits: 1
Rehearsal, coaching and preparing guitar literature for performance of duos, trios, and quartets. Musicians other than guitarists are permitted to enroll and be incorporated into the ensembles. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MUSIC 573 Contemporary Chamber Ensemble Credits: 1
Assignments in performing ensemble literature. Open to all University students with graduate standing. Prereq: Cons inst; Grad st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 574 Wind Ensemble Credits: 1
Limited instrumentation for students having attained exceptional level of performance ability. Prereq: Audition; Grad st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 576 Concert Band Credits: 1
Rehearsal and performance from band literature; additional study of performance practice. Open to graduate students only. Prereq: Audition; Grad st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 577 Chorale Credits: 1
Performance and study of choral chamber music. Prereq: Audition; Grad st
Typically Offered: Fall, Spring, Summer

MUSIC 578 Concert Choir Credits: 1
Performance plus additional study of performance practice and choir literature. Open to graduate majors only. Prereq: Audition. Grad st
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 579 Masters Singers Credits: 1
A group of select singers who study varied repertoire conducted by graduate students. Prereq: Audition; Grad st
Typically Offered: Fall, Spring, Summer

MUSIC 591 Organ Literature and Design Credits: 2
Survey of organ literature with parallel study of organ design and construction. Research project required. Prereq: Sr/Grad st or cons inst
Typically Offered: Occasionally

MUSIC 619 Music Research Methods and Materials Credits: 3
Historical and contemporary bibliography resources for musical scholarship; general reference tools of scholarly work and specific musicological works. Prereq: Grad st or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MUSIC 620 Proseminar in Musicology Credits: 3
Introduction to musicological methods and problems, principally with reference to the history of Western music. Current issues. Prereq: Music 619
Typically Offered: Fall, Spring, Summer

MUSIC 621 Renaissance Polyphony Credits: 3
Analysis and stylistic composition. Prereq: Sr st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
MUSIC 622 Baroque Counterpoint Credits: 3
Analysis and stylistic composition. Prereq: Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 623 Form and Analysis Credits: 2 - 3
Study of modern analytical techniques; practice in analysis of representative works. Prereq: Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 624 Form and Analysis II Credits: 2 - 3
Continuation of 623. Prereq: Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 681 Senior Honors Thesis Credits: 3
Prereq: Committee approval
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 682 Senior Honors Thesis Credits: 3
Prereq: Committee approval
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUSIC 725 Music Theory Pedagogy Credits: 3
Approaches to the instruction of undergraduates in rudiments, aural skills, harmony, counterpoint, and analysis; problem-solving in the classroom; computer-assisted instruction. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 749 Seminar in Vocal Techniques Credits: 2
Study and analysis of various vocal techniques: pedagogical and historical viewpoints. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 751 Seminar in Piano Pedagogy Credits: 3
Interpretive and technical approaches to advanced keyboard performance. Prereq: Grad st; cons inst
Typically Offered: Occasionally

MUSIC 752 Piano Pedagogy Workshop Credits: 1
This course is designed to assist the DMA student in piano performance and pedagogy in developing a pedagogical workshop for piano teachers. The project will culminate in a public workshop which may address any approved area of keyboard pedagogy. Prereq: DMA candidate in piano performance and pedagogy; one semester of Music 751; cons inst
Typically Offered: Occasionally

MUSIC 768 Advanced Language Diction for Singing II Credits: 2
Continuation of 767. Prereq: Grad st; cons inst; knowledge of International Phonetic Alphabet (IPA)
Typically Offered: Occasionally

MUSIC 791 Seminar in Piano Literature Credits: 3
Applied piano literature including representative works from all periods. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 792 Seminar in Vocal Literature Credits: 3
Comprehensive study of vocal literature including representative works from various periods. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 796 Seminar in Duo Sonata Literature Credits: 3
Comprehensive study of major works for single instrument and piano with primary focus on interpretive and technical issues for the collaborative musician. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 798 Seminar-Instrumental Literature Credits: 2
Prereq: Grad st & cons inst
Typically Offered: Occasionally
MUSIC 799 Independent Work Credits: 1 - 3
Approval of project and assignment to staff member by Graduate Committee. Prereq: Cons of Grad committee
Typically Offered: Occasionally

MUSIC 821 Historical Music Theories 1 Credits: 3
The development of musical concepts and issues in music-theoretical discourse from antiquity through the 17th century. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 822 Historical Music Theories 2 Credits: 3
The development of musical concepts and issues in music-theoretical discourse from the 17th century through the present. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 823 Schenkerian Analysis Credits: 3
Studies in the theoretical concepts and analytical methods of Heinrich Schenker. Prereq: Music 621 or cons inst
Typically Offered: Occasionally

MUSIC 824 Post-tonal Analysis Credits: 3
Studies in the theoretical concepts and analytical methods, including those of Milton Babbitt, Allen Forte, David Lewin, Robert Morris, and others. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 900 Colloquium Credits: 0
Current research topics presented by staff, graduate students, and visiting scholars. Required of all graduate students in music history and ethnomusicology throughout residence. Required of all graduate students in music history, ethnomusicology, and music theory throughout residence. Prereq: Graduate or professional standing
Typically Offered: Occasionally

MUSIC 909 Music and Culture Workshop Credits: 1 - 3
Advanced training in the cultural and interdisciplinary study of music. Emphasizes on critical analysis of recent scholarship; peer-review of manuscripts; presentation of ongoing research. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 911 Seminar in Musicology Credits: 3
Topics in musicology, dealing primarily with an important aspect or genre or music or segment of a stylistic period. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 915 Seminar in Ethnomusicology Credits: 3
Topics in ethnomusicology within a cross-cultural framework; melodic typology, scale and tuning systems, mode, rhythm, ornamentation, improvisation techniques, oral and written traditions of composition, notation systems, and function of music society. Prereq: Music 401 or 402, 515
Typically Offered: Occasionally

MUSIC 921 Current Issues in Musical Thought 1 Credits: 3
Topics of current theoretical or compositional concern and in-depth discussions of recent publications. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 923 Seminar in Notation Credits: 3
Notational systems, their history, interpretation and significance with special reference to development of Western notation. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 925 Topics in Music Analysis 1 Credits: 3
Intensive discussions of particular repertoire or musical problems. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 926 Topics in Music Analysis 2 Credits: 3
Intensive discussions of particular repertoire or musical problems. Prereq: Cons inst
Typically Offered: Occasionally
MUSIC 927 Seminar in Composition Credits: 3
Topics directly related to composition, including musical forms, contemporary performance practice, electronic music, intermedia. Prereq: Cons inst
Typically Offered: Occasionally

MUSIC 990 Masters Thesis Credits: 1 - 4
Approval of subject and assignment to staff member by the Graduate Committee. Prereq: Assignment by Grad committee
Typically Offered: Occasionally

MUSIC 999 PhD Diss/DMA Project Credits: 1 - 3
Approval of project and assignment to staff member by the Graduate Committee. Prereq: Cons of Grad committee
Typically Offered: Occasionally

MUSIC-PERFORMANCE

MUS PERF  7 Fundamentals-Flute Credits: 1
Prereq: Cons inst. Open to Fr
Typically Offered: Fall

MUS PERF  12 Fundamentals: Double Reeds Credits: 1
Exploration of the fundamentals of the double reed instruments: oboe and bassoon. Prereq: Cons inst
Typically Offered: Spring

MUS PERF  14 Fundamentals: Single Reeds Credits: 1
Exploration of the fundamentals of single reed instruments: saxophone and clarinet. Prereq: Cons inst
Typically Offered: Fall

MUS PERF  18 Fundamentals-High Brass Credits: 1
Exploration of the fundamentals of the high brass instruments: trumpet and French horn. Prereq: Cons inst.
Open to Fr
Typically Offered: Spring

MUS PERF  24 Fundamentals-Low Brass Credits: 1
Exploration of the fundamentals of the low brass instruments: trombone, euphonium and tuba. Prereq: Cons inst.
Open to Fr
Typically Offered: Fall

MUS PERF  27 Fundamentals-Percussion Credits: 1
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring

MUS PERF  32 Fundamentals-High Strings Credits: 1
Exploration of the fundamentals of the high string instruments: violin and viola. Prereq: Cons inst. Open to Fr
Typically Offered: Spring

MUS PERF  36 Fundamentals-Low Strings Credits: 1
Exploration of the fundamentals of the low stringed instruments: violoncello and double bass. Prereq: Cons inst.
Open to Fr
Typically Offered: Spring

MUS PERF  44 Study Abroad: Beginning Instruction in Music Performance Credits: 1
Beginning class or private music performance instruction taken in a UW-Madison resident study abroad program.
Prereq: Enrollment in a UW-Madison resident study abroad program
Typically Offered: Fall, Spring, Summer

MUS PERF  47 Basic Flute Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer
MUS PERF 49 Basic Oboe Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 51 Basic Clarinet Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 55 Basic Bassoon Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 57 Basic Horn Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 59 Basic Trumpet/Cornet Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 61 Basic Trombone Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 63 Basic Euphonium Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 65 Basic Tuba Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 67 Basic Percussion Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 71 Basic Violin Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 73 Basic Viola Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 75 Basic Cello Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 76 Basic Guitar Credits: 1 - 2
Private instruction in guitar performance at the beginning level. Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 77 Basic String Bass Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 79 Basic Harp Credits: 1 - 2
Prereq: Cons inst. Open to Fr
Typically Offered: Fall, Spring, Summer

MUS PERF 101 Beginning Class Piano Credits: 2
Prereq: Audition & consent of instructor. Open to Freshmen
L&S Level: Elementary   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring
MUS PERF 102 Beginning Class Piano Credits: 2  
Prereq: Audition & consent of instructor. Open to Freshmen  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 103 Elementary Class Piano Credits: 2  
Prereq: Audition and consent of instructor. Open to Freshmen  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 104 Intermediate Class Piano Credits: 2  
Prereq: Audition and consent of instructor. Open to Freshmen  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 108 Jazz Class Piano Credits: 2  
Development of basic jazz piano skills for solo, accompaniment, and ensemble playing; discussion of the role of the piano in various jazz ensemble formats; introduction to chord symbols, jazz voicings, melodic improvisation, and bass lines; continued development of sound technical skills for the piano. Students will apply these concepts to the performance of lead sheets from the standard jazz repertoire. Prereq: MUS PERF 102  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUS PERF 143 Introduction to Performance: Voice Credits: 1  
Voice for the non-music major beginning voice student; basic concepts of vocal technique, tone production, breathing, and diction for singing; basic musicianship; singing in class by the student individually and in small groups. Prereq: Cons inst. Not open to Music majors. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 144 Vocal Instruction for Non-Voice Majors Credits: 1 - 2  
Vocal instruction for the non-voice major. Basics of classical vocal technique; however, repertoire may include other musical styles, such as musical theater or jazz, as approved by instructor. A final, memorized performance exam is required. Prereq: Cons inst. Not open to voice majors. Open to Fr  
Typically Offered: Fall, Spring

MUS PERF 147 First Year Composition Credits: 3  
Prereq: Cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 148 First Year Composition Credits: 3  
Prereq: Cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 200 Elementary/Intermediate Piano for Non-Piano Majors Credits: 2  
Prereq: Audition or Mus Perf 104. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 201 Elementary/Intermediate Piano Credits: 2 - 4  
Prereq: Cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 202 Elementary/Intermediate Harpsichord Credits: 2 - 4  
Introduction to basic harpsichord technique, continuo realization and intermediate-level repertoire. Prereq: Cons inst, Mus Perf 201 or 203  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 203 Elementary/Intermediate Organ Credits: 2 - 4  
Prereq: Cons inst & satisfactory polyphonic piano technique. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 205 Elementary/Intermediate Voice Credits: 2 - 4  
Prereq: Cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Level</th>
<th>Credit</th>
<th>Typically Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS PERF 207</td>
<td>Elementary/Intermediate Flute</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>MUS PERF 209</td>
<td>Elementary/Intermediate Oboe</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>MUS PERF 211</td>
<td>Elementary/Intermediate Clarinet</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 213</td>
<td>Elementary/Intermediate Saxophone</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 215</td>
<td>Elementary/Intermediate Bassoon</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 217</td>
<td>Elementary/Intermediate Horn</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 219</td>
<td>Elementary/Intermediate Trumpet</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 221</td>
<td>Elementary/Intermediate Trombone</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>MUS PERF 223</td>
<td>Elementary/Intermediate Euphonium</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 225</td>
<td>Elementary/Intermediate Tuba</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 227</td>
<td>Elementary/Intermediate Percussion</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 231</td>
<td>Elementary/Intermediate Violin</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 233</td>
<td>Elementary/Intermediate Viola</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>MUS PERF 235</td>
<td>Elementary/Intermediate Cello</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 237</td>
<td>Elementary/Intermediate String Bass</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>MUS PERF 239</td>
<td>Elementary/Intermediate Harp</td>
<td>2 - 4</td>
<td>Cons inst. Open to Fr</td>
<td>Elementary</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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</tbody>
</table>
MUS PERF 240 Elementary/Intermediate Guitar Credits: 2 - 4  
Prereq: Cons inst. Open to Fr  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 242 Accompanying Credits: 2  
Prereq: Cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 247 Second Year Composition Credits: 3  
Prereq: Cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 248 Second Year Composition Credits: 3  
Prereq: Cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 251 Keyboard Skills Credits: 2  
Keyboard skills for the piano major. Prereq: Admission to Mus Perf 201 & cons inst  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUS PERF 301 Advanced Techniques: Piano Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 311 Advanced Techniques: Clarinet Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 315 Advanced Techniques: Bassoon Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 327 Advanced Techniques: Percussion Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 331 Advanced Techniques: Violin Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 333 Advanced Techniques: Viola Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 335 Advanced Techniques: Cello Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 339 Advanced Techniques: Harp Credits: 1 - 2  
Prereq: Jr st & cons inst  
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 342 Piano Accompanying Lab Credits: 1  
Laboratory in piano accompanying for piano emphasis majors. Prereq: Cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 347 Third Year Composition Credits: 3  
Prereq: Cons inst  
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>L&amp;S Level</th>
<th>L&amp;S Credit</th>
<th>Typically Offered</th>
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<tbody>
<tr>
<td>MUS PERF 348</td>
<td>Third Year Composition</td>
<td>3</td>
<td></td>
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<td>Spring</td>
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<tr>
<td>MUS PERF 401</td>
<td>Advanced Piano</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 402</td>
<td>Advanced Harpsichord</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
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<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 403</td>
<td>Advanced Organ</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 405</td>
<td>Advanced Voice</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 407</td>
<td>Advanced Flute</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 409</td>
<td>Advanced Oboe</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 411</td>
<td>Advanced Clarinet</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 413</td>
<td>Advanced Saxophone</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 415</td>
<td>Advanced Bassoon</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 417</td>
<td>Advanced Horn</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 419</td>
<td>Advanced Trumpet</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 421</td>
<td>Advanced Trombone</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 423</td>
<td>Advanced Euphonium</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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<tr>
<td>MUS PERF 425</td>
<td>Advanced Tuba</td>
<td>2-4</td>
<td>Cons inst</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring</td>
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</table>
MUS PERF 427 Advanced Percussion Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 431 Advanced Violin Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 433 Advanced Viola Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 435 Advanced Cello Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 437 Advanced String Bass Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 439 Advanced Harp Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 440 Advanced Guitar Credits: 2 - 4
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 447 Fourth Year Composition Credits: 3
Prereq: Cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUS PERF 448 Fourth Year Composition Credits: 3
Prereq: Cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 457 Jazz Composition and Arranging Credits: 3
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MUS PERF 458 Jazz Composition and Arranging Credits: 3
Prereq: Cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MUS PERF 499 Senior Recital Credits: 2
Prereq: Approval of applied area
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 501 Masters Level-Piano Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 503 Masters Level-Organ Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 505 Masters Level-Voice Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 507 Masters Level-Flute Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MUS PERF 509 Masters Level-Oboe Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 511 Masters Level-Clarinet Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 513 Masters Level-Saxophone Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 515 Masters Level-Bassoon Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 517 Masters Level-Horn Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 519 Masters Level-Trumpet Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 521 Masters Level-Trombone Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 523 Masters Level-Euphonium Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 525 Masters Level-Tuba Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 527 Masters Level-Percussion Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 531 Masters Level-Violin Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 532 Advanced Conducting Credits: 3 - 4
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 533 Masters Level-Viola Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 535 Masters Level-Cello Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 540 Masters Level-Guitar Credits: 4
Prereq: Grad st in Music Perf & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MUS PERF 542 Advanced Accompanying Credits: 2 - 3
Prereq: Grad st in Music Perf; extensive repertoire in accompanying literature including public performance; cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MUS PERF 547 Masters Level Composition Credits: 3
Private composition at the master's degree level. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 548 Masters Level Composition Credits: 3
Private composition at the master's degree level. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MUS PERF 561 Organ Improvisation and Liturgy Credits: 2
Development of organ improvisation skills; survey of liturgical practices and styles. Prereq: Sr/Grad st or cons inst
Typically Offered: Occasionally

MUS PERF 562 Organ Improvisation and Liturgy Credits: 2
Continuation of 561. Prereq: Sr/Grad st or cons inst
Typically Offered: Occasionally

MUS PERF 701 Doctoral Level-Piano Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 703 Doctoral Level-Organ Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 705 Doctoral Level-Voice Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 707 Doctoral Level-Flute Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 709 Doctoral Level-Oboe Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 711 Doctoral Level-Clarinet Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 713 Doctoral Level-Saxophone Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 715 Doctoral Level-Bassoon Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 717 Doctoral Level-Horn Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 719 Doctoral Level-Trumpet Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally
MUS PERF 721 Doctoral Level-Trombone Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 723 Doctoral Level Euphonium Credits: 4
Doctoral level private instruction in euphonium performance. Prereq: Audition & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MUS PERF 725 Doctoral Level Tuba Credits: 4
Private instruction in tuba performance including appropriate etudes, solo, chamber and orchestral literature.
Prereq: Acceptance into the Doctor of Musical Arts Degree program for brass instruments
Typically Offered: Occasionally

MUS PERF 727 Doctoral Level Percussion Credits: 4
This course is designed to assist the student in musical and technical proficiency on designated percussion instruments. Studying at an advanced performance level, the student works independently and with faculty guidance to develop one's personal potential. Prereq: Graduate or professional standing
Typically Offered: Occasionally

MUS PERF 731 Doctoral Level-Violin Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 732 Doctoral Level Conducting Credits: 2
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 733 Doctoral Level-Viola Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 735 Doctoral Level-Cello Credits: 4
Prereq: Grad st in Music Perf & cons inst
Typically Offered: Occasionally

MUS PERF 740 Doctoral Level-Guitar Credits: 4
Prereq: Mus Perf 540
Typically Offered: Occasionally

MUS PERF 742 Doctoral Level Private Instruction in Accompanying Credits: 2
Extensive, in-depth study of the collaborative piano repertoire, focusing primarily on works for single instruments and voice with piano at the doctoral level. Prereq: Cons inst
Typically Offered: Occasionally

MUS PERF 747 Doctoral Level Composition Credits: 3
Doctoral level composition. Prereq: Cons inst
Typically Offered: Occasionally

MUS PERF 748 Doctoral Level Composition Credits: 3
Doctoral level composition. Prereq: Cons inst
Typically Offered: Occasionally

MUS PERF 990 Masters Recital Credits: 1 - 4
Prereq: Approval of Grad committee
Typically Offered: Occasionally

MUS PERF 999 DMA Recital Credits: 1 - 2
Prereq: Approval of Grad committee
Typically Offered: Occasionally

PHILOSOPHY
PHILOS 101 Introduction to Philosophy Credits: 3 - 4
Prereq: Open to all students but preference will be given to Freshmen & Sophomores who have had no previous philosophy course other than 210, 211, 253 or 254.
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 104 Special Topics in Philosophy for Freshmen Credits: 3
Examination of selected topics.  Prereq: Open to Fr with no prev college level coursework in philosophy
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 106 Study Abroad in Philosophy Credits: 2 - 4
Treatment of a topic in philosophy in a course offered at a university outside the United States.  Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 141 The Meaning of Life Credits: 3 - 4
This course enters the subject of philosophy through a question that is familiar to nearly every student: What is the meaning of life? This question will be approached through reading both classical philosophical works (Plato, Aristotle, Epictetus, Tolstoy, Kant) and the works of contemporary philosophers (Wolf, Nozick, Nagel, Kazez).
Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 201 Introduction to Philosophy for Juniors and Seniors Credits: 3 - 4
Prereq: Open only to Jrs & Srs who have had no previous philos courses other than 210, 211, 253 or 254
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 206 Study Abroad in Philosophy Credits: 2 - 4
Treatment of a topic in philosophy in a course offered at a university outside the United States.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 210 Reason in Communication Credits: 3 - 4
Argument in familiar contexts; emphasis upon developing critical skills in comprehending, evaluating, and engaging in contemporary forms of reasoning, with special attention to the uses of argument in mass communication media.  Prereq: MATH 095 or placement into MATH 101. MATH 118 does not fulfill the prerequisite
General Education: QR-A  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 211 Elementary Logic Credits: 3 - 4
The formal characteristics of logical truth and inference.  Prereq: Sophomore standing and satisfied Quantitative Reasoning (QR) A requirement
General Education: QR-B  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 220 Philosophy and the Sciences Credits: 3 - 4
This is a first course in philosophy of science, aimed at undergraduates who are interested in science. Throughout the course, the emphasis will be on understanding the logic of scientific reasoning. Students will learn the ABCs of deductive logic and probability reasoning, and will learn how to apply these to various central questions in philosophy of science, such as: How are causation and correlation different? What distinguishes science from pseudo-science, religion, and technology? What is a scientific explanation, and what makes one explanation better than another? How do moral issues arise in scientific research and how are they related to the question of whether a theory should be ac
General Education: QR-A  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 241 Introductory Ethics Credits: 3 - 4
Nature of moral problems and of ethical theory, varieties of moral skepticism, practical ethics and the evaluation of social institutions.  Prereq: So st
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
PHILOS 243 Ethics in Business  Credits: 3 - 4  
Case studies of moral issues in business; types or reasons appealed to for settlement. Prereq: So st  
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 253 Philosophy of the Arts  Credits: 3 - 4  
Introduction to the problems of aesthetics, such as the nature of art; aesthetic experience; the description, interpretation, and evaluation of works of art. Prereq: So st  
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 261 Introduction to the Philosophy of Religion  Credits: 3 - 4  
Doctrines and arguments of Western and Eastern religious and philosophical traditions: deity, human nature, immortality, resurrection, religious experience, faith, reason, good, evil, etc. Prereq: So st or cons inst  
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 304 Topics in Philosophy: Humanities  Credits: 3 - 4  
Examination of selected topics in philosophy. Prereq: Prerequisites vary by topic  
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 305 Topics in Philosophy: Social Science  Credits: 3 - 4  
Examination of selected topics in philosophy in social science. Prereq: Prerequisites vary by topic  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 341 Contemporary Moral Issues  Credits: 3 - 4  
A philosophical study of some of the major moral issue in contemporary society, such as those concerning abortion, euthanasia, punishment, property, politics, sex, nuclear disarmament, and world hunger. Prereq: So st or cons inst  
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 430 History of Ancient Philosophy  Credits: 3 - 4  
Various philosophers from the presocratics to the Stoics and Epicureans; particular emphasis on Plato and Aristotle. Prereq: So st & 3 cr in philos or cons inst  
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 432 History of Modern Philosophy  Credits: 3 - 4  
This course covers various philosophers from the 17th century through early 20th century. Prereq: 3 credits of philosophy or consent of instructor  
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 433 19th Century Philosophers  Credits: 3 - 4  
Prereq: Jr st & 3 cr in philos or cons inst  
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 435 Jewish Philosophy from Antiquity to the Seventeenth Century  Credits: 3  
A survey of major philosophers and philosophical currents within Judaism from antiquity through the seventeenth century. Prereq: 3 credits in philosophy  
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHILOS 440 Existentialism  Credits: 3 - 4  
Feeling like life is absurd, that existence is meaningless? Worried that you aren't living authentically? Then a course in Existentialism is just what you need. Study the classic texts of this intellectual movement that expressed despondency about Western civilization, its decadence, and its values. Along the way you'll meet the likes of Kierkegaard, Nietzsche, Heidegger, Sartre, Camus, and De Beauvoir. Prereq: Junior standing & 3 credits in philos or consent of instructor  
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
PHILOS 441 Environmental Ethics Credits: 3 - 4
Adequacy of ethical theories in handling such wrongs as harm to the land, to posterity, to endangered species, and to the ecosystem itself. Exploration of the view that not all moral wrongs involve harm to humans. Inquiry into the notion of the quality of life and the ethics of the "lifeboat" situation. Prereq: 3 cr philos or envir studies, or Grad st in IES
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 442 Moral Philosophy and the Holocaust Credits: 3
Selected moral and philosophical issues raised by the Holocaust such as when and whom to rescue; includes issues arising after the annihilation such as forgiveness and reconciliation. Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHILOS 454 Classical Philosophers Credits: 3
One or more classical philosophers, movements, or problems selected for intensive study. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 464 Classical Philosophers Credits: 3
One or more classical philosophers, movements, or problems selected for intensive study. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 481 Junior Honors Seminar Credits: 3
One or more philosophers, movements, or problems selected for intensive study. Prereq: Jr st & certif as hon cand, 6 cr in philos, 3.0 GPA in philos and cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 482 Junior Honors Seminar Credits: 3
Same as 481. Prereq: Jr st & 6 cr in philos & 3.0 GPA in Philos-4.0 basis
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 501 Philosophy of Religion Credits: 3 - 4
Analysis of religious experience and activity, and examination of principal religious ideas in light of modern psychology, philosophy, science, and anthropology. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 502 Special Topics in Philosophy of Religion Credits: 3
One or more topics selected from among the following: religious discourse, God, evil, survival, great philosophers of religion, etc. Variable content. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 503 Theory of Knowledge Credits: 3
A survey of problems concerning the nature, sources, and limits of human knowledge, including such topics as scepticism, the concept of knowledge, sensory perception, evidence, justified belief, induction. Prereq: Philos 101, 103, 201, or cons inst; & Jr st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 504 Special Topics in the Theory of Knowledge Credits: 3
One or more special topics in the Theory of Knowledge or one or more major theories of knowledge. Variable content. Prereq: Jr st and 3 cr philos
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
PHILOS 505 Justice and Health Care Credits: 3
Examines ethical issues in the distribution, financing, and delivery of health care (primarily in the United States). The first third of the class explores key issues in U.S. health policy and forms the empirical foundation for the rest of the class. The second third explores ongoing debates in moral and political philosophy over putative entitlements to health and health care. The last third investigates the nature, justifiability, and methods of health care rationing, including bedside rationing by doctors, and the myriad issues implicated by the near-universally shared goal of health care cost containment. Prereq: Junior, Senior or Graduate standing
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

PHILOS 506 Study Abroad in Philosophy Credits: 2 - 4
Treatment of a topic in philosophy in a course offered at a university outside the United States. L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHILOS 511 Symbolic Logic Credits: 3
Propositional and predicate logic, with emphasis on metatheory; independence of rules and completeness theorems; discussion of technical and philosophical limitations of classical logic. Prereq: Jr st, Philos 211 or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHILOS 512 Methods of Logic Credits: 3
Selected topics in philosophical logic and in the various applications of logic to philosophical problems. Variable content. Prereq: Philos 211 or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHILOS 515 Public Health Ethics Credits: 3
Focuses on ethical issues implicated in a population-level approach to disease prevention and health promotion. Explores prominent theoretical approaches to public health ethics and engages with several ethical tensions. Issues discussed can include: the use of coercive or intrusive public health interventions that restrict individual freedom, infringe upon individual privacy, and/or invite individual harm (or risks of harm); the justification of paternalistic measures in societies or sub-populations that seemingly indulge in pleasurable yet unhealthy behaviors; the extent to which societies should hold individuals responsible for their health conditions; the need to decide who receives li
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

PHILOS 516 Language and Meaning Credits: 3
The nature and function of language, theories of meaning, semantic and syntactic paradoxes, proper names, private languages, rules, and linguistic relativity. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHILOS 520 Philosophy of the Natural Sciences Credits: 3
Nature and functions of science; the logic of scientific method; clarification of such concepts as cause, law, theory, probability, determinism, teleology. Prereq: Jr st & 3 crs in philos or cons inst
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHILOS 521 Philosophy of the Social Sciences Credits: 3
Problems in applying methods and concepts of science to the study of social behavior. Prereq: 3 cr in philos & Jr st or cons inst
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHILOS 522 Special Topic Credits: 3
Selected from logic of theory construction, theoretical entities, models, applied mathematics, nature of laws, conventionalism, probability, etc. Variable content. Prereq: Prereqs vary according to topic
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

PHILOS 523 Philosophical Problems of the Biological Sciences Credits: 3
Problems raised by genetics, evolutionary theory, and taxonomy: patterns of explanatory force and dispensability of teleology; objectivity of taxonomy. Prereq: 3 cr of philos or 3 cr in a biological science
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
PHILOS 524 Philosophy and Economics Credits: 3
Economics examined from the viewpoint of the philosophy of science. Normative and positive aspects of economic theory. Deterministic and statistical explanation. Arrow impossibility theorem. Radical economics. Team taught by a philosopher and an economist. Prereq: Jr st and at least 3 cr in econ or 3 cr in philos
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 526 Philosophy and Literature Credits: 3
Analysis of philosophic ideas as embodied in literary works and the relation of these ideas to other aspects of the works such as plot, structure, characterization and language. Discussion of related questions about literature, literary themes, and thematic criticism. Prereq: Jr st & 3 cr in philos
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 530 Freedom Fate and Choice Credits: 3
Readings in Mill, James, Russell, Sartre and others to study the origin of the problem, clarify the issues, and attain a reasonable solution. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 541 Modern Ethical Theories Credits: 3
Ethical theories and problems as discussed in the late nineteenth and twentieth centuries. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 543 Special Topics in Ethics Credits: 3
Intensive study of ethical theory, or of one or more ethical theories or moral philosophers of the present or modern period. Variable content. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 545 Philosophical Conceptions of Teaching and Learning Credits: 3
Examination and analysis of conceptions of teaching and learning in classical philosophical works and in contemporary literature in the philosophy of education. Prereq: Jr st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 549 Great Moral Philosophers Credits: 3
Major themes of moral philosophy, from Plato and Aristotle to Bentham and Mill, with critical study of outstanding works. Prereq: Jr st & 3 cr in philos
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 550 Philosophy of Moral Education Credits: 3
Critical examination of classical and contemporary conceptions of moral education. Prereq: Jr st
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHILOS 551 Philosophy of Mind Credits: 3
Nature of mind (mental states such as thinking and feeling) and its relation to physical states, with emphasis on recent advances in philosophy and psychology. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 553 Aesthetics Credits: 3
Analysis of current philosophies of art and of criticism. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 554 Philosophy of the Artificial Sciences Credits: 3
Examination of issues surrounding artificial intelligence and artificial life; discussion of the natures of mind and life; evaluation of competing computational paradigms for modeling mind; analysis of contributions artificial sciences can make to psychology and biology. Prereq: Jr st, 3 cr of philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 555 Philosophy of Science Credits: 3
Philosophy of science examined from the viewpoint of the philosophy of science. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 556 Philosophy of Language Credits: 3
 study of language and its role in human thought and action, with emphasis on recent advances in philosophy and linguistics. Prereq: Jr st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
PHILOS 555 Political Philosophy Credits: 3
Philosophical doctrines involved in justification of political decisions; analysis of some fundamental concepts, e.g. the common good, authority, justice, natural law, natural rights. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 556 Topics in Feminism and Philosophy Credits: 3
Topics from historical and contemporary feminist thought; attention to one or more feminist philosophers, historical movements, philosophical frameworks, or sets of philosophically related issues. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 557 Issues in Social Philosophy Credits: 3
Specific topics in social and political philosophy such as war and peace, property and industry, individualism and collectivism, freedom and justice. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 558 Ethical Issues in Health Care Credits: 3
Ethical issues apparently created by new biomedical technologies, such as genetic screening, prenatal diagnosis, prolongation of life, treatment of severe birth defects, in vitro fertilization, behavior modification, psychosurgery, and transplantation. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHILOS 559 Philosophy of Law Credits: 3
Nature and function of law, relations between law and morality, logic of legal reasoning, analysis of fundamental concepts and institutions. Prereq: Jr st & 3 cr in philos
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 560 Metaphysics Credits: 3
Major problems in metaphysics, such as: existence, universals and particulars, space and time, individuals, categories, substance and attribute, necessity. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 562 Special Topics in Metaphysics Credits: 3
An intensive study of one or more topics such as: existence, universals and particulars, space and time, individuals, individuation, categories, substance and attribute, necessity, events and processes. Prereq: Jr st & 3 cr in philos or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 565 The Ethics of Modern Biotechnology Credits: 3 - 4
Study of ethical issues arising from the application of modern biotechnology to microorganisms, crops, and non-human animals. Readings cover moral theory, technology studies, political philosophy, the science used in biotechnology, and current regulations governing its use. Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 571 Mathematical Logic Credits: 3
Basics of logic and mathematical proofs; propositional logic; first order logic; undecidability. Prereq: Math 340 or 341 or 375
L&S Breadth: Humanities or Nat Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHILOS 581 Senior Honors Seminar Credits: 3
Prereq: Certif as honors cand, Sr st 12 cr in philos, & 3.2 GPA in philos
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 582 Senior Honors Seminar Credits: 3
Prereq: Sr st, 12 cr in philos, & 3.2 GPA in philos
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHILOS 599 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st. Graded on a lettered basis; requires written cons inst & approval of department chairman
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
PHILOS 681 Senior Honors Thesis Credits: 1 - 3
Prereq: Honors cand, consult dept honors adviser
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 682 Senior Honors Thesis Credits: 3
Prereq: Honors cand, consult dept honors adviser
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 691 Senior Thesis Credits: 3
Prereq: Consult adviser
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 692 Senior Thesis Credits: 3
Continuation of 691. Prereq: Philos 691, consult adviser
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 698 Directed Study Credits: 2 - 3
Prereq: Sr st. Graded on a Cr/N basis; requires written cons inst, approval of dept chairman needed
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 699 Directed Study Credits: 2 - 3
Prereq: Sr st. Graded on a lettered basis; requires written cons inst, approval of dept chairman needed
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHILOS 701 Reading Seminar Credits: 3
An examination of select topics in philosophy. Prereq: Consent of instructor
Typically Offered: Fall, Spring

PHILOS 799 Directed Study Credits: 1 - 3
Prereq: Grad st, written cons inst and dept chairperson
Typically Offered: Occasionally

PHILOS 830 Advanced History of Philosophy Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PHILOS 835 Advanced History of Philosophy Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 838 Advanced History of Philosophy-Kant Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PHILOS 902 Proseminar in Philosophy Credits: 3
Provides the core material (across otherwise diverse specialties) required by all incoming graduate students in philosophy. There will be an emphasis on close reading of texts and writing skills in addition to the content of the course. Prereq: First year graduate stdt status in Philosophy
Typically Offered: Fall

PHILOS 903 Seminar: Epistemology Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 911 Seminar-Logic Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 916 Seminar-Philosophy of Language Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally
PHILOS 920 Seminar-Philosophy of Science: Causation, Explanation & Probability Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 930 Seminar-History of Philosophy Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 941 Seminar-Ethics Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 951 Seminar-Philosophy of Mind Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PHILOS 955 Seminar Social and Political Philosophy Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 960 Metaphysics Seminar Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

PHILOS 961 Seminar-Philosophy of Religion Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PHILOS 990 Research and Thesis Credits: 2 - 9
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

PHILOS 994 Research in Ethics Credits: 2 - 9
Prereq: Consult major professor
Typically Offered: Occasionally

PHILOS 999 Independent Work Credits: 2 - 9
Prereq: Cons inst-consult adviser
Typically Offered: Occasionally

PHYSICS

PHYSICS 103 General Physics Credits: 4
Introduction at the non-calculus level. Not recommended for students in the physical sciences and engineering. Principles of mechanics, heat, and sound, with applications to a number of different fields. Two lectures, two discussions, plus one two-hour lab per week. Prereq: Completion of QR-A. High school algebra, geometry and some trig; Not open to those who have taken Physics 201, 207, or 247; Open to Freshman. Recommended for students who do not need a calculus level course; Not recommended for students in the physical sciences and engineering.
General Education: QR-B L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

PHYSICS 104 General Physics Credits: 4
Continuation of Physics 103. Principles of electricity and magnetism, light, optics, and modern physics, with applications to a number of different fields. Two lectures, two discussions and one two-hour lab per week. Prereq: Physics 103. Not open to those who have taken Physics 202, 208, or 248; Open to Freshman
L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
PHYSICS 107 The Ideas of Modern Physics Credits: 3
For non-science majors. The twentieth century physical world picture and its origins. Selected topics in classical physics: relativity, and the quantum theory with emphasis on the meaning of basic concepts and their broader implications rather than practical applications. Three lectures per week. Prereq: Completion of QR-A. High school algebra & geometry. Not open to students who have taken an intermediate or advanced level physics course. Open to Freshmen
General Education: QR-B L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 109 Physics in the Arts Credits: 3
A course on sound and light for non-science majors. The nature of sound and sound perception; fundamentals of harmony, musical scales, and musical instruments. Studies of light including lenses, photography, color perception, and color mixing. Two lectures and one two-hour lab per week. Prereq: Completion of QR-A. High school algebra & geometry. Not open to students who have had an intermediate or advanced level physics course, including Physics 371. Open to Freshmen
General Education: QR-B L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 115 Energy Credits: 3
A one-semester introduction, focusing on a central concept: energy, energy sources, and the environment. Gives students the necessary physics background to form opinions on energy questions. The physical laws of thermodynamics, electricity, and magnetism, and nuclear physics in connection with energy related topics such as: thermal pollution, fossil power, fission and fusion, nuclear power, and solar power. Two lectures and one discussion per week. Prereq: Completion of QR-A. High school algebra and geometry. Not open to students who have taken Physics 103, 201, 207, or 247.
General Education: QR-B L&S Breadth: Physical Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 198 Directed Study Credits: 1 - 3
Prereq: Cons inst. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PHYSICS 199 Directed Study Credits: 1 - 3
Prereq: Cons inst. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PHYSICS 201 General Physics Credits: 5
Primarily for engineering students. Mechanics and heat. Two lectures, two discussions and one three-hour lab per week. Prereq: Math 211 or 221 or 1 year high school calculus or instructor consent. Not open to students who have taken Physics 207 or 247; Open to Freshmen
General Education: QR-B L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PHYSICS 202 General Physics Credits: 5
Primarily for engineering students. Electricity, magnetism, light, and sound. Two lectures, two discussions and one three-hour lab per week. Prereq: Physics 201, 207, or EMA 201 and EMA 202, or EMA 201 and ME 240, or equivalent. Not open to students who have taken Physics 208 or 248
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PHYSICS 205 Modern Physics for Engineers Credits: 3
Introduction to atomic, solid state, and nuclear physics. Prereq: Physcis 202, 208 or 248. Not open to students who have taken Physics 241, 244, or 249
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 206 Special Topics in Physics Credits: 1 - 5
Special topics in physics at the intermediate undergraduate level. Prereq: Prereqs vary according to topic
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
PHYSICS 207 General Physics Credits: 5
Recommended for those majoring in science or mathematics. Also suitable for others who have the math prerequisite. Mechanics, heat and sound. Two lectures, two discussions and one three-hour lab per week. Prereq: Math 221 or 211 or 1 year high school calculus or instructor consent. Not open to students who have taken Physics 201 or 247; Open to Freshmen
General Education: QR-B L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 208 General Physics Credits: 5
Continuation of Physics 207. Electricity, magnetism, light, and modern physics. Two lectures, two discussions and one three-hour lab per week. Prereq: Physics 201, 207, or 247. Not open to students who have taken Physics 202 or 248; Open to Freshmen
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 235 Introduction to Solid State Electronics Credits: 3
An introduction to the physical principles underlying solid-state electronic and photonic devices, including elements of quantum mechanics, crystal structure, semiconductor band theory, carrier statistics, and band diagrams. Offers examples of modern semiconductor structures. Prereq: Open to Fr. Math 222 & Physics 202 L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 241 Introduction to Modern Physics Credits: 3
Kinetic theory; relativity; experimental origin of quantum theory; atomic structure and spectral lines; topics in solid state, nuclear and particle physics. Experiments for this course are covered in Physics 307. Prereq: Physics 202 or 208 or 248 & Math 222. Not open to students who have taken Physics 205, 244, or 249
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 244 Modern Physics (Primarily for ECE Majors) Credits: 3
Quantum mechanics, atomic structure of matter, physical properties of solids, nuclear physics; emphasis on fundamental concepts to aid the student in engineering applications. Prereq: Physics 202 or 208 or 247 & Math 234 or concurrent registration. Not open to students who have taken Physics 205, 241, or 249
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 247 A Modern Introduction to Physics Credits: 5
Introduction to physics recommended for students who are considering majoring in physics, astronomy-physics, or AMEP. Also suitable for those majoring in other sciences or mathematics who desire a rigorous physics course. Mechanics, relativity, cosmology. Three lectures, one discussion, and one three-hour lab per week. Prereq: Math 222 or concurrent registration or instructor consent; Open to Freshmen. Intended primarily for physics, AMEP, astronomy-physics majors; Also suitable for those majoring in science or mathematics
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

PHYSICS 248 A Modern Introduction to Physics Credits: 5
Continuation of Physics 247. Electricity, magnetism, and topics from thermodynamics, radiation, plasma physics, and statistical mechanics. Three lectures, one discussion, and one three-hour lab per week. Prereq: Physics 247, Math 234 or concurrent enrollment; Open to Freshmen. Intended primarily for physics, AMEP, and astronomy-physics majors
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

PHYSICS 249 A Modern Introduction to Physics Credits: 4
Continuation of Physics 248. Modern physics: introduction to quantum mechanics, topics from nuclear and particle physics, condensed matter physics, and atomic physics. Three lectures and one discussion per week. Prereq: Physics 248 & Math 234, or consent of instructor; concurrent registration in Physics 307 required. Not open to students who have taken Physics 241; Open to Freshmen. Intended primarily for physics, AMEP, astronomy-physics majors
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

PHYSICS 265 Introduction to Medical Physics Credits: 2
Primarily for premeds and other students in the medical and biological sciences. Applications of physics to medicine and medical instrumentation. Topics: biomechanics, sound and hearing, pressure and motion of fluids, heat and temperature, electricity and magnetism in the body, optics and the eye, biological effects of light, use of ionizing radiation in diagnosis and therapy, radiation safety, medical instrumentation. Two lectures with demonstrations per week. Prereq: A yr crse of college level intro physics
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
PHYSICS 298 Directed Study Credits: 1 - 3
Prereq: Intro physics and cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSICS 299 Directed Study Credits: 1 - 3
Prereq: Intro physics and cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSICS 301 Physics Today Credits: 1
A series of weekly presentations and discussions of current research topics in physics, by scientists directly involved in those studies. Provides undergraduates with access to the topics and excitement of the research frontier in a manner not possible in normal subject courses. Prereq: Physics 208 or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSICS 307 Intermediate Laboratory-Mechanics and Modern Physics Credits: 2
Experiments in mechanics and modern physics, mainly associated with the subject matter of Physics 241 and 311. Prereq: Physics 202 or 208. Physics 205, 241, or 244 or con reg recommended
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHYSICS 308 Intermediate Laboratory-Electromagnetic Fields and Optics Credits: 2
Experiments in electromagnetic fields and optics, mainly associated with the subject matter of Physics 322 and 325. Prereq: Physics 202 or 208. Physics 205, 241, or 244 recommended. Physics 322 and 325 or con reg recommended
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSICS 311 Mechanics Credits: 3
Origin and development of classical mechanics; mathematical techniques, especially vector analysis; conservation laws and their relation to symmetry principles; brief introduction to orbit theory and rigid-body dynamics; accelerated coordinate systems; introduction to the generalized-coordinate formalisms of Lagrange and Hamilton. Prereq: Physics 202 or 208, & Math 320 or 319 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHYSICS 321 Electric Circuits and Electronics Credits: 4
Direct current circuits, circuit theorems, alternating current circuits, transients, non-sinusoidal sources, Fourier analysis, characteristics of semiconductor devices, typical electronic circuits, feedback, non-linear circuits; digital and logic circuits; three lectures and one three-hour lab per week. Prereq: Physics 202 or 208, & Math 320 or 319 or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHYSICS 322 Electromagnetic Fields Credits: 3
Electrostatic fields, capacitance, multi-pole expansion, dielectric theory; magnetostatics; electromagnetic induction; magnetic properties of matter; Maxwell's equations and electromagnetic waves; relativity and electromagnetism. Experiments for this course are covered in Physics 308. Prereq: Physics 311
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHYSICS 325 Wave Motion and Optics Credits: 3
Wave phenomena with specific applications to waves in media and electromagnetic phenomena. Wave equations, propagation, radiation, coherence, interference, diffraction, scattering. Light and its interactions with matter, geometrical and physical optics. Experiments for this course are covered in Physics 308. Prereq: Physics 205, 241, or 244, and Physics 311. Physics 322 or concurrent enrollment recommended
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSICS 371 Acoustics for Musicians Credits: 3
Intended for music students who wish to learn about physical basis of sound, sound perception, musical scales, musical instruments, and room acoustics. May not be taken by Physics majors to count as physics credit. Prereq: Completion of QR-A, High school algebra. Intended primarily for musicians and others with some music background
General Education: OR-B  L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit
Typically Offered: Spring
PHYSICS 406 Special Topics in Physics Credits: 1 - 4
Special topics in physics at the advanced undergraduate level. Prereq: Physics 241 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

PHYSICS 407 Advanced Laboratory Credits: 2 - 4
Advanced experiments in classical and modern physics, many associated with the subject matter of Physics 415, 448, 449. Possible experiments include beta decay, muon lifetime, nuclear magnetic resonance, Stern-Gerlach atomic beam, Mossbauer scattering, velocity of light, Zeeman effect, and Compton scattering. Techniques for the statistical analysis of experimental data are emphasized. One (two) credit students will typically perform 4 (8) experiments. Prereq: Physics 307 or 308 or cons inst
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

PHYSICS 415 Thermal Physics Credits: 3
Thermodynamics, kinetic theory of gases, and statistical mechanics. Prereq: Physics 241, 244, or 205 & 311
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PHYSICS 448 Atomic and Quantum Physics Credits: 3
First semester of a two-semester senior course. Review of atomic and other quantum phenomena and special relativity; introduction to quantum mechanics treating the more advanced topics of atomic physics and applications to molecular, solid state, nuclear, and elementary particle physics and quantum statistics. Experiments underlying this course are covered in Physics 407. Prereq: Physics 205, 241, or 244, and Physics 311 and 322. Not open to those who have had Physics 531
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

PHYSICS 449 Atomic and Quantum Physics Credits: 3
A continuation of 448. Prereq: Physics 448
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

PHYSICS 472 Scientific Background to Global Environmental Problems Credits: 3
A one-semester course designed to provide those elements of physics, atmospheric sciences, chemistry, biology and geology which are essential to a scientific understanding of global environmental problems. Specific examples of such problems include global warming, stratospheric ozone depletion, acid rain and environmental toxins. Three lectures per week. Prereq: PHYSICS 103, 201, 207, or 247 or CHEM 103, 108, 109, 115, or 116
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

PHYSICS 498 Directed Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PHYSICS 499 Directed Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PHYSICS 501 Radiological Physics and Dosimetry Credits: 3
Interactions and energy deposition by ionizing radiation in matter; concepts, quantities and units in radiological physics; principles and methods of radiation dosimetry. Prereq: Calculus and modern physics
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

PHYSICS 507 Graduate Laboratory Credits: 2
Students perform typically advanced modern physics experiments and utilize advanced statistical techniques for data analysis. Scientific writing is emphasized and one scientific paper is required. Prereq: Physics 307 or 407 or equiv or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

PHYSICS 525 Introduction to Plasmas Credits: 3
Basic description of plasmas: collective phenomena and sheaths, collisional processes, single particle motions, fluid models, equilibria, waves, electromagnetic properties, instabilities, and introduction to kinetic theory and nonlinear processes. Examples from fusion, astrophysical and materials processing processing plasmas. Prereq: One crse in electromagnetic fields beyond elem physics
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
PHYSICS 527 Plasma Confinement and Heating Credits: 3
Principles of magnetic confinement and heating of plasmas for controlled thermonuclear fusion: magnetic field structures, single particle orbits, equilibrium, stability, collisions, transport, heating, modeling and diagnostics. Discussion of current leading confinement concepts: tokamaks, tandem mirrors, stellarators, reversed field pinches, etc. Prereq: NEEP/Phys/ECE 525 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSICS 531 Introduction to Quantum Mechanics Credits: 3
Historical background and experimental basis, de Broglie waves, correspondence principle, uncertainty principle, Schrodinger equation, hydrogen atom, electron spin, Pauli principle; applications of wave mechanics. Prereq: Physics 311 & 322 & a course in modern physics, or equiv, or cons inst. Not open to those who have had Physics 448
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSICS 535 Introduction to Particle Physics Credits: 3
Introduction to particles, antiparticles and fundamental interactions; detectors and accelerators; symmetries and conservation laws; electroweak and color interactions of quarks and leptons; unification theories. Prereq: Physics 531 or equiv
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHYSICS 545 Introduction to Atomic Structure Credits: 3
Nuclear atom; hydrogen atom; Bohr-Sommerfeld model, wave model, electron spin, description of quantum electron spin, description of quantum electrodynamic effects; external fields; many-electron atoms; central field, Pauli principle, multiplets, periodic table, x-ray spectra, vector coupling, systematics of ground states; nuclear effects in atomic spectra. Prereq: A course in quantum mechanics or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSICS 546 Lasers Credits: 2 - 3
General principles of laser operation; laser oscillation conditions; optical resonators; methods of pumping lasers, gas discharge lasers, e-beam pumped lasers, solid state lasers, chemical lasers, and dye lasers; gain measurements with lasers; applications of lasers. Prereq: Physics 322 or ECE 420 or equiv; Physics 545, or 449 or 531
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSICS 551 Solid State Physics Credits: 3
Mechanical, thermal, electric, and magnetic properties of solids; band theory; semiconductors; crystal imperfections. Prereq: A course in quantum mechanics or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHYSICS 563 Radionuclides in Medicine and Biology Credits: 2 - 3
Physical principles of radioisotopes used in medicine and biology and operation of related equipment; lecture and lab. Prereq: Physics 205, Physics 241, or Physics 249, or Graduate Standing
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHYSICS 601 Scientific Presentation Credits: 2
Oral and written reports to give practice in the presentation of scientific papers. Prereq: Grad st or Sr st in the Honors program or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSICS 603 Workshop in College Physics Teaching Credits: 1 - 2
Prereq: At least 9 cr in intmd physics
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSICS 619 Microscopy of Life Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
PHYSICS 623 Electronic Aids to Measurement Credits: 4
Fundamentals of electronics, electronic elements, basic circuits; combinations of these into measuring instruments. Three lectures and one three-hour lab per week. Prereq: Undergraduates who have 3 semesters of calculus level physics may enroll with consent of instructor
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHYSICS 625 Applied Optics Credits: 4
Optical methods in research and technology. Reflection, refraction, absorption, scattering. Imaging. Sources and sensors. Interferometry. Fourier optics, image processing, holography. Laser technology, Gaussian beams, nonlinear optics. Prereq: Three semesters of calculus level physics or equiv. Sr or Grad st or cons inst
L&S Breadth: Physical Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSICS 681 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor. Note that no credit for physics 681 will be received until successful completion of 682. Must be taken as a sequence with 682.
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSICS 682 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor. Must be taken as a sequence following 681
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSICS 691 Senior Thesis Credits: 2 - 3
Prereq: Consent of instructor. Note that no credit for Physics 691 will be received until successful completion of 692. Must be taken as a sequence with 692
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSICS 692 Senior Thesis Credits: 2 - 3
Prereq: Consent of instructor. Must be taken as a sequence following 691
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSICS 711 Theoretical Physics-Dynamics Credits: 3
Lagrange's equations, Principle of Least Action, orbits and scattering, kinematics of rotation, rigid body dynamics, small oscillations, special relativistic dynamics, Hamiltonian formulation, canonical transformations, Hamilton-Jacobi theory, chaos, continuum mechanics, introduction to general relativity. Prereq: Physics 311 or equiv
Typically Offered: Fall

PHYSICS 715 Statistical Mechanics Credits: 3
Statistical foundations, Liouville's theorem, ensembles, classical and quantum distribution functions, entropy and temperature, connection with thermodynamics, partition functions, quantum gases, non-ideal gases, phase transitions and critical phenomena, non-equilibrium problems, Boltzmann equation and the H-theorem, transport properties, applications of statistical mechanics to selected problems. Prereq: Physics 711, 531 & 415, or equiv
Typically Offered: Spring

PHYSICS 716 Statistical Mechanics II Credits: 3
Typically Offered: Fall

PHYSICS 717 Relativity Credits: 3
Special and general theories of relativity, relativistic electrodynamics, cosmology, unified field theories. Prereq: Physics 721
Typically Offered: Occasionally

PHYSICS 721 Theoretical Physics-Electrodynamics Credits: 3
Electrostatics, magnetostatics, Green functions, boundary value problems, macroscopic media, Maxwell's equations, the stress tensor and conservation laws, electromagnetic waves, wave propagation, dispersion, waveguides, radiation, multipole expansions, diffraction and scattering, special relativity, covariance of Maxwell's equations, Lienard-Wiechert potentials, radiation by accelerated charges. Prereq: Physics 322 or equiv
Typically Offered: Fall, Spring
PHYSICS 724 Waves and Instabilities in Plasmas Credits: 3
Waves in a cold plasma, wave-plasma interactions, waves in a hot plasma, Landau damping, cyclotron damping, magneto-hydrodynamic equilibria and instabilities, microinstabilities, introduction to nonlinear processes, and experimental applications. Prereq: NEEP/ECE/Physics 525 & Physics 721 or ECE 740 or cons inst
Typically Offered: Occasionally

PHYSICS 725 Plasma Kinetic Theory and Radiation Processes Credits: 3
Coulomb Collisions, Boltzmann equation, Fokker-Planck methods, dynamical friction, neoclassical diffusion, collision operators radiation processes and experimental applications. Prereq: Physics, ECE, NEEP 525 & Physics 721 or ECE 740 or cons inst
Typically Offered: Occasionally

PHYSICS 726 Plasma Magnetohydrodynamics Credits: 3
MHD equations and validity in hot plasmas; magnetic structure and magnetic flux coordinates; equilibrium in various configurations; stability formulation, energy principle, classification of instabilities; ideal and resistive instability in various configurations, evolution of nonlinear tearing modes; force-free equilibria, helicity, MHD dynamo; experimental applications. Prereq: NEEP/ECE/Physics 525 & Physics 721 or ECE 740 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSICS 731 Quantum Mechanics Credits: 3
Schrodinger equation, operator theory, matrix mechanics, transformation theory, Heisenberg representation, orbital angular momentum, bound-state problems, scattering theory, stationary perturbation theory, degenerate systems, time-dependent perturbation theory, Born approximation, other approximation methods. Prereq: Physics 449 or 531, or equiv
Typically Offered: Fall

PHYSICS 732 Quantum Mechanics Credits: 3
Interaction of electromagnetic radiation with matter, quantization of the electromagnetic field, spontaneous transitions, identical particles and spin, addition of angular momenta, tensor operators, complex atoms, Hartree approximation, molecules, Dirac equation, relativistic effects in atoms. Prereq: Physics 721 & 731
Typically Offered: Spring

PHYSICS 735 Particle Physics Credits: 3
Structure of elementary particles, quarks and gluons, introduction to calculational techniques of particle interactions (Feynman diagrams), constituent models of electroweak and strong interactions and associated phenomenological techniques. Prereq: Physics 535, 731 or equiv or cons inst
Typically Offered: Fall

PHYSICS 736 Experimental Methods in Nuclear-, Particle-, and Astrophysics Credits: 3
Interaction of particles with matter; detector techniques at colliding beam machines, in nuclear and particle physics, astrophysics, and cosmology; experimental strategies in detector design; principles of simulation and Monte Carlo methods, error analysis and statistical techniques in data analysis. Prereq: Physics 535 or cons inst
Typically Offered: Spring

PHYSICS 741 Experimental Nuclear Physics Credits: 3
Basic properties of nuclei, nuclear forces and energetics; scattering, reaction, radioactivity; nuclear radiations, their interactions with matter and detection. Prereq: Physics 531 or 449
Typically Offered: Occasionally

PHYSICS 746 Quantum Electronics Credits: 3
Elementary aspects of Lagrange theory of fields and field quantization; Bose, Fermi and Pauli operators; interaction of fields; quantum theory of damping and fluctuations; applications to lasers, nonlinear optics, and quantum optics. Prereq: ECE-Physics 546; Physics 721 or ECE 740
Typically Offered: Occasionally

PHYSICS 748 Linear Waves Credits: 3
General considerations of linear wave phenomena; one dimensional waves; two and three dimensional waves; wave equations with constant coefficients; inhomogenous media; random media. Lagrangian and Hamiltonian formulations; asymptotic methods. Prereq: ECE 440 or Physics 322 or cons inst
Typically Offered: Occasionally
PHYSICS 749 Coherent Generation and Particle Beams Credits: 3
Fundamental theory and recent advances in coherent radiation charged particle beam sources (microwave to X-ray wavelengths) including free electron lasers, wiggler/wave-particle dynamics, Cerenkov masers, gyrotrons, coherent gain and efficiency, spontaneous emission, beam sources and quality, related accelerator concepts experimental results and applications. Prereq: ECE 740 or Physics 721, or equiv, or cons inst
 Typically Offered: Occasionally

PHYSICS 751 Advanced Solid State Physics Credits: 3
Lattice dynamics; band theory; Fermi surfaces; electrodynamics of metals; optical properties; transport properties. Prereq: Physics 731 and 551 or equiv
 Typically Offered: Spring

PHYSICS 752 Many-Body Problems in Solid State Physics Credits: 3
Introduction to many-body problems in solids: phonons, magnons, homogeneous electron gas, superconductivity, disordered systems. Prereq: Physics 731
 Typically Offered: Occasionally

PHYSICS 772 High Energy Astrophysics Credits: 3
Interactions among the particles, fields, and radiation of interstellar and intergalactic space. Gamma-ray, x-ray, and cosmic ray production, propagation, and detection. Prereq: Physics 721 or 322, basic knowledge of spec relativity, basic diff equations, or cons inst
 Typically Offered: Occasionally

PHYSICS 775 Advanced Ultrasound Physics Credits: 3
Foundations of acoustic wave equations, diffraction phenomena and acoustic beam formation, models for acoustic scattering from discrete structures and inhomogeneous continua, speckle statistics including speckle correlation, applications of these topics in medical imaging. Prereq: Med Phys 575, Physics 311, 322, 325, Math 234, or cons inst
 Typically Offered: Occasionally

PHYSICS 799 Independent Study Credits: 1 - 3
Prereq: Cons inst
 Typically Offered: Occasionally

PHYSICS 801 Special Topics in Theoretical Physics Credits: 1 - 3
Can be repeated for credit. Prereq: Cons inst
 Typically Offered: Occasionally

PHYSICS 805 Special Topics in Physics Credits: 1 - 3
Can be repeated for credit. Prereq: Cons inst
 Typically Offered: Occasionally

PHYSICS 831 Advanced Quantum Mechanics Credits: 3
Quantum theory of free and interacting fields, formal scattering theory, dispersion theory. Prereq: Physics 732
 Typically Offered: Fall

PHYSICS 832 Advanced Quantum Mechanics Credits: 3
Continuation of 831. Prereq: Physics 831
 Typically Offered: Spring

PHYSICS 833 Advanced Math in Quantum Field Theory Credits: 3
The use in physics, most specifically nonabelian gauge field theory, of differential forms, homology, cohomology, homotopy, index theorems, fiber bundles, parallel transport, connections, curvature, characteristic classes, moduli space, Morse theory, and assorted other mathematics, is motivated, developed, and illustrated. Prereq: Physics 731, 732 & 831; or cons inst
 Typically Offered: Occasionally

PHYSICS 835 Collider Physics Phenomenology Credits: 2 - 3
 Typically Offered: Fall
PHYSICS 848 Nonlinear Waves  Credits: 3  
General considerations of nonlinear wave phenomena; nonlinear hyperbolic waves; nonlinear dispersion; nonlinear geometrical optics; Whitham's variational theory; nonlinear and parametric instabilities; solitary waves; inverse scattering method. Prereq:  ECE 748 or cons inst  
Typically Offered: Occasionally

PHYSICS 900 Colloquium  Credits: 0 - 1  
Lectures by staff and visitors. Prereq:  Cons inst if taken for 1 cr  
Typically Offered: Fall, Spring

PHYSICS 903 Seminar-Theoretical Physics  Credits: 0 - 1  
Prereq:  Graduate or professional standing  
Typically Offered: Occasionally

PHYSICS 910 Seminar in Astrophysics  Credits: 0 - 1  
Current topics. Prereq:  Cons inst  
Typically Offered: Occasionally

PHYSICS 922 Seminar in Plasma Physics  Credits: 0 - 1  
Prereq:  Graduate or professional standing  
Typically Offered: Occasionally

PHYSICS 951 Seminar-Solid State Physics  Credits: 0 - 1  
Prereq:  Graduate or professional standing  
Typically Offered: Fall, Spring

PHYSICS 990 Research  Credits: 1 - 12  
Prereq:  Consent of instructor  
Typically Offered: Fall, Spring, Summer

POLITICAL SCIENCE

POLI SCI 100 Freshman Topics Seminar  Credits: 3  
An umbrella course to be used to offer a variety of special topics seminars for freshmen. The topic is footnoted whenever the course is offered. Prereq:  Open to Fr only  
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

POLI SCI 103 Introduction to International Relations  Credits: 3 - 4  
Explores past and present patterns of political, social and technological change in terms of their contemporary and future implications for international relations. Prereq:  Open to Fr. Not open to stdts who have taken 183, 275 or 375  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 104 Introduction to American Politics and Government  Credits: 3 - 4  
Basic institutions and processes of American government. The role of constitutional structures, parties, interest groups and elections in the system; policy formation and policy content. Prereq:  Open to Fr. Not open to stdts who have had Poli Sci 182, 184 or 404  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 106 Politics Around the World  Credits: 4  
Comparison of politics and government in selected countries around the world. Students may not enroll in Poli Sci 106 and 186. Prereq:  None  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 181 Topics in Political Analysis-Honors  Credits: 3  
This course is a freshman/sophomore honors seminar. Topics will vary with the instructor, and will be footnoted in the timetable. Prereq:  Only open to stdts certified in the Honors Prgm  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall
POLI SCI 184 Introduction to American Politics Credits: 3
Basic institutions and processes of American government. The role of constitutional structures, parties, interest groups and elections in the system; policy formation and policy comment. Prereq: Only open to Fr & So certified in the honors program. Stds may not receive cr for Poli Sci 184 if they have already received cr for Poli Sci 104 or 404
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 186 Politics Around the World (Honors) Credits: 3
Comparison of politics and government in selected countries around the world. Students may not enroll in both Poli Sci 106 and 186. Prereq: Open only to students in the honors program
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 199 Directed Study Credits: 2
Prereq: Fr & So, written cons inst, prior course in poli sci. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 200 Research Methods in Political Science Credits: 3
Methods of Political Inquiry introduces students to political science as a discipline by focusing on the development of research questions, research designs, and the quantitative and qualitative tools commonly used to implement research designs. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 201 Special Topics in Political Science Credits: 3
An experimental topics course that introduces students to compelling recent events and to the current research of political scientists. This course can be repeated by students, but not with the same content. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 202 Preparation for the Wisconsin in Washington Program Credits: 1
This course will prepare students to participate in the Wisconsin in Washington Internship Semester. The course focuses on internship searches, applications, and decisions on where to work. The course also sets academic, professional and personal goals for the upcoming term in DC. Students will also identify a tentative public policy topic that they will initiate this term and research and complete during the semester in DC. The course will spend time on reviewing general and DC-specific standards of professional conduct. Successful completion of this course is required for final admission to the Wisconsin in Washington Program. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 205 Introduction to State Government Credits: 3 - 4
Basic institutions and processes of state government in the United States; the role of parties, pressure groups, and elections in the system; the policy process, its outputs and outcomes; the role of states in the federal system, and the diversity of state politics and policy. Prereq: Previous poli sci course recommended, or cons inst; not to be taken after Poli Sci 405 Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 209 Introduction to Political Theory Credits: 3 - 4
Analytical examination of conceptions of politics and the purposes of government, the problems of political obligation deriving from these, with attention to the ideas of crime, punishment and responsibility, political crimes—treason, collaboration, war crimes—and the limits of obligation and forms of dissent. Prereq: Open to Fr. Not open to stdts who have had Poli Sci 185
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 217 Law, Politics and Society Credits: 3 - 4
Introduction to the legal process. Examination of the various concepts of law, the perennial problems of the law, legal reasoning, and the nature and function of law and the courts. Prereq: Fr & So only
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 218 Understanding Political Numbers Credits: 3 - 4
How numbers and statistics are used in electoral strategies, political debates and legal proceedings. Presents basic tools of analysis and how to use them. Prereq: Completion of QRA. Open to Fr
General Education: QR-B  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring
POLI SCI 219 Introduction to Public Policy Credits: 3 - 4
Major issues of public policy in such fields as economic management, welfare, education, health, energy and the environment. How public problems develop, approaches to policy-making, why programs succeed and fail.
Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 231 Politics in Multi-Cultural Societies Credits: 3 - 4
Race, ethnicity, and religion as political factors; cultural pluralism, politics, and policy in the United States and selected other multi-cultural politics. Prereq: Fr or So st only
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 244 Introduction to Southeast Asia: Vietnam to the Philippines Credits: 4
Southeast Asian history, religion, folklore and literatures, educational systems, and politics from the early classical states to contemporary social, literary, and political developments. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 252 The Civilizations of India-Modern Period Credits: 4
Contemporary India society as a joint product of the classical heritage and world-wide movements toward nationalism; social and economic development. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

POLI SCI 253 Russia: An Interdisciplinary Survey Credits: 4
Comprehensive interdisciplinary survey of Russian civilization from its beginnings through the present day. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 254 Eastern Europe: An Interdisciplinary Survey Credits: 4
Comprehensive interdisciplinary survey of East European culture, society, politics, and literature from its beginnings to the present day. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 255 Introduction to East Asian Civilizations Credits: 3 - 4
Multidisciplinary and historical perspectives on the East Asian civilizations of China, Japan, Korea, Tibet and Mongolia from prehistory to the present, including developments in philosophy, economy, governance, social structure, kinship, geography, etc. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

POLI SCI 260 Latin America: An Introduction Credits: 3 - 4
Latino American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 267 Introduction to Political Psychology Credits: 3 - 4
Examines the psychological aspects of the political behavior of individuals--whether elites, activists or members of general publics--and their consequent political behaviors in various groups and institutional contexts. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 271 Introduction to Afro-American Politics Credits: 3 - 4
Survey of the political conditions in Black America. Prereq: Poli Sci 104 recommended
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
POLI SCI 274 Political Choice and Strategy Credits: 3 - 4
Within any set of institutions for making social choices, what are the opportunities for the exercise of political strategy? An introduction to decision analysis, strategic interaction, and voting systems and their manipulation will provide a basis for answering this question. Prereq: Completion of QRA. Open to Fr
General Education: QR-B  L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 277 Africa: An Introductory Survey Credits: 4
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure. Prereq: Open to Fr  L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 297 African and African-American Linkages: An Introduction Credits: 4
Analysis of retention of African elements in African-American oral, written, and material culture. Social, cultural, and political issues regarding race, self-definition, and self-determination in both Africa and North America will be examined. Prereq: Open to Fr  Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 312 Politics of the World Economy Credits: 3 - 4
Power conflict at the international economic level and its impact on the politics of various nations, regions, and interests. Prereq: Jr st & Poli Sci 103, 275 or 375  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 313 Bargaining in the Global Economy Credits: 3 - 4
This course explores the techniques and outcomes of bargains struck between states, and between states and firms in the global economy. The emphasis is on micro political economy and negotiation/bargaining theory. Prereq: Poli Sci 312, or Econ 364 or 464, or equiv  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 316 Principles of International Law Credits: 3 - 4
Prereq: Jr st and one course in pol sci or modern history  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 317 The Politics of Human Rights Credits: 3 - 4
Examines the origins and development of human rights in international politics. The course discusses what human rights are, international human rights movements, the international search for justice after mass crimes, and international humanitarian intervention. Prereq: Jr st  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 318 The Comparative Study of Genocide Credits: 3 - 4
Examines the phenomenon of genocide in the modern world. The class covers the concept of genocide, theories of why genocide occurs, and particular cases in the 20th and 21st centuries. Prereq: Jr st  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 319 Terrorism Credits: 3
Examines the causes of terrorism, goals and strategies pursued by terrorist groups, the consequences of terrorism, and counterterrorism policies adopted by governments. Prereq: Jr st  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 325 Social Movements and Revolutions in Latin America Credits: 3 - 4
An introduction to the major empirical and theoretical themes in the study of social movements and politics in Latin America. While it is impossible to cover every theoretical approach or Latin American case during the semester, the course should give students the tools to begin to think critically about where and why people engage in collective action. We will develop and hone these tools through thinking about Latin American cases, paying specific attention to revolutions, social movements, and riots. The course is designed in three parts. It begins by exposing students to the dominant theoretical paradigms in the study of contentious politics as well as some prominent critiques. The cours  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
POLI SCI 327 Indian Politics in Comparative Perspective  Credits: 3
This course explores the socio-economic and political outcomes across India. This course will employ the major theories of comparative politics that explain political outcomes such as regime type, economic development and conflict. This course explores why some countries are democracies, while others are dictatorships; why some countries are poor, while others are rich; and why some countries experience high levels of violence, while others are peaceful. The course considers how India comports with standard theories in comparative politics and how standard theories might be revised in light of the Indian case.

The course maps variation on the sub-national and regional level. The course will
L&S Breadth:  Social Science  L&S Level: Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

POLI SCI 330 Political Economy of Development  Credits: 3
An introduction to the political economy of development. The course asks why are some countries are rich and others poor. To help answer this question, the course examines leading theories of economic development. In light of these theories, the course highlights the development experiences of three major regions of the world: the West, East Asia, and the former Communist Block. The course considers a series of issues about development, including the effect of ethnic diversity, corruption, natural resources and women's empowerment on economic development concluding with an examination of the effects of the international interactions--via trade, foreign aid, migration and war--on economic deve
L&S Breadth:  Social Science  L&S Level: Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

POLI SCI 332 German Politics  Credits: 3 - 4
A broad overview of politics in Germany, Europe's politically and economically most powerful country. The course is structured around several broad themes: political institutions, electoral system and elections, parties and party system, interest representation, political participation, political economy, the legacies of Germany's past, social policy, European and foreign policy, and current and future challenges. Throughout the semester, we will relate the German experience to broader issues, problems, and concepts used in the comparative study of domestic politics. Prereq: Sophomore standing and POLI SCI 120 (or POLI SCI 106 prior to Fall 2017)
L&S Breadth:  Social Science  L&S Level: Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

POLI SCI 333 International Politics of the Middle East  Credits: 3 - 4
Surveys the international politics of the Middle East. Topics to be considered include the international origins of the Middle Eastern states system, inter-Arab politics, the Arab-Israeli conflict; transnational forces. Prereq: Poli Sci 103, 275, or 375
L&S Breadth:  Social Science  L&S Level: Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

POLI SCI 337 International Institutions and World Order  Credits: 3 - 4
The study of international cooperation and the analysis of regional, functional, and universal regimes and institutions. Prereq: Jr st & Poli Sci 103, 275 or 375
L&S Breadth:  Social Science  L&S Level: Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

POLI SCI 338 The European Union: Politics and Political Economy  Credits: 3 - 4
Introduction to the history and theory of European integration. Topics include the workings of EU institutions and law, the effect of the EU on national politics and economy, economic politics and policy-making in the EU, the EU as an actor in the world economy. Prereq: Poli Sci 103, 106 (or 186 for honors) or consent of instructor
L&S Breadth:  Social Science  L&S Level: Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

POLI SCI 346 China in World Politics  Credits: 3 - 4
Chinese foreign policy as seen from Peking--the need for national security, the desire for revolution; and the impact of China on the rest of the world. Prereq: Jr st
L&S Breadth:  Social Science  L&S Level: Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

POLI SCI 353 The Third World in the International System  Credits: 3 - 4
This course examines the historical evolution of the Third World in general and North-South relations in specific. Particular attention is addressed to the institutions of colonialism and patterns of post-colonial relations between the First and Third Worlds. Prereq: Jr st & Poli Sci 103, 275 or 375
L&S Breadth:  Social Science  L&S Level: Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring
POLI SCI 359 Problems in American Foreign Policy Credits: 3 - 4
Persistent problems facing the United States in its search for national security and international stability and progress. Prereq: Jr st & Poli Sci 103, 275 or 375; Poli Sci 104, 184 or 404 recommended
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 362 African International Relations Credits: 3 - 4
Inter-state conflict and cooperation in Africa. Topics include Pan-Africanism, African Union, and regional integration; the international dimensions of regional crises; relations with great powers and with international financial institutions; and the role of non-state actors in international politics. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 367 Theories of International Security Credits: 3 - 4
Role of alliances in contemporary and historical international political systems. Purpose of alliance formation; reasons for their dissolution; relationship of alliance activity with international war and with political integration. Role of alliances in future international systems. Prereq: Jr st & Poli Sci 103, 275 or 375
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 371 International Political Economy Credits: 3 - 4
Analyzes the interaction of politics and economics in the international arena, both historically and in the contemporary era of globalization. Focuses on international trade, monetary, and financial relations in both developed and developing economies. Prereq: Jr st & Poli Sci 103 & one course in economics; or cons instr; student may not receive credit for Poli Sci 379 and Poli Sci 371
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 376 Analysis of International Relations Credits: 3 - 4
Analysis of international political systems such as balance of power, collective security, deterrence; and the major political processes sustaining those systems, such as threats and violence, bargaining, coalition-formation. The advanced introductory course in the international field. Prereq: Jr st & Poli Sci 103, 275 or 375
General Education: QR-B  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 377 Nuclear Weapons and World Politics Credits: 3 - 4
Covers the origins of nuclear weapons, the reasons states seek them, the strategies developed for their use, the consequences of their development, and efforts to control and reverse their spread. Prereq: Jr st, Poli Sci 103 recommended
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 378 Conflict Resolution Credits: 3 - 4
Every war comes to an end, but some end sooner than others. This course analyzes why and how conflicts come to an end, discussion relevant theories of conflict and conflict resolution, and important cases. Prereq: Jr st & Poli Sci 103
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 390 Study Abroad Topics in Political Science: International Relations Credits: 1 - 4
An umbrella course for variable credit international relations courses taken on study abroad programs. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 400 Topics in Political Science Credits: 1 - 4
An umbrella course for variable credit topic courses, such as summer forum, intensive summer courses, half-semester courses, etc. Prereq: Prerequisites will vary according to topic
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 401 Selected Topics in Political Science Credits: 3 - 4
This course can be repeated by students, but not with the same content. Prereq: Jr st. Prereq may vary with topic
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
This course offers the opportunity to apply many things learned in the classroom to the professional world and to apply things learned in the professional world to a student's liberal arts education. Interning will introduce students to the professional world of political organizations, giving them the chance to enhance professional skills, build a network of contacts, and explore possible career choices. This class stresses active reflection, self-assessment, and the honing of critical thinking and writing. The internship course builds structure with written assignments, activities, reflections, and readings to help students to make the most of their internships. Analytical work in this course:

L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

The structure of state government and the politics of public policy-making in the fifty states. Jr st with a prev crse in poli sci. Poli Sci 205 recommended

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

The President as chief administrative leader, political leader, foreign policy initiator, commander-in-chief, and head of state. Prereq: Jr st & Poli Sci 104, 184 or 404; or cons inst

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

This course undertakes an historical examination of the development of American constitutional thinking about powers and structures of government from the founding era to the present day. Issue that are considered include separation of powers, executive war powers, the powers of Congress, judicial review and the role of courts, and federalism. The course focuses on the development of constitutional law, constitutional politics, and American political development. Prereq: Sophomore standing & Poli Sci 104, 184 or 404

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

This course undertakes an historical examination of the development of American constitutional thinking about individual rights and civil liberties from the founding era to the present day. Issue that are considered include freedoms guaranteed by the original Articles, the Bill of Rights, and the Civil War Amendments (XIII, XIV, and XV) as these issues appear in constitutional law, constitutional politics, and social and economic developments. The role of the federal courts, the nature and operation of principles of federalism, and the authority of Congress to protect constitutionally guaranteed rights are also major topics of consideration. Prereq: Sophomore standing & Poli Sci 104, 184 or 404

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

This course uses a social science approach to analyze theories of judicial decision making and to learn how law is made in a political context. Students will understand how the Supreme Court and justices operate in an interdependent political environment. Prereq: Junior standing; Poli Sci 104 or 217

L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

The goal of this class is to teach students how political institutions create and influence the federal courts. We will examine various concepts such as the creation of courts, the appointment process, jurisdiction, statutory interpretation, legislative encroachment into the judicial process, and other inter-institutional relationships. Prereq: Sophomore standing

L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

Structure, process, and personnel of American courts; emphasis on the governmental and political consequences of court decisions for public policy-making. Prereq: Jr st & Poli Sci 104, 184 or 404

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
POLI SCI 420 Administrative Law Credits: 3 - 4
Delegation of powers, elements of fair administrative procedure, judicial control over administrative determination. Prereq: Jr st & Poli Sci 104, 184 or 404; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 422 Latino History and Politics Credits: 3
Students will examine the historical, social, political, economic, and cultural experiences and conditions of Latinos, the second largest US racial/ethnic minority group. Course focus is on people who trace their origins to Mexico, the Caribbean, and countries of Latin America. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

POLI SCI 423 Social Mobilization in Latin America Credits: 3
This course serves as an introduction to the major empirical and theoretical themes in the study of mobilization in Latin America. Prereq: Sophomore standing
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 424 American Parties and Politics Credits: 3 - 4
Electoral, organizational, and governmental roles of political parties at national and state levels, with emphasis on changes in response to historical and contemporary circumstances. Prereq: Jr st & Poli Sci 104 or 404; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 425 Citizenship, Democracy, and Difference Credits: 4
A service-learning course designed to foster enhanced understanding of citizenship and civic engagement. Basic democratic theory, empirical research on political participation, functions and regulation of nonprofit organization. Prereq: So st, & Poli Sci 104 or 404
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 426 United States Congress Credits: 3 - 4
Principles, procedures and problems of the legislative process of the United States Congress. Prereq: Junior standing & Poli Sci 104, 184 or 404; or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 427 Legislative Internship Credits: 3
Practical experience in a legislative office. Policy research. Readings in legislative process. Prereq: Jr st & cons inst. Not open to Grad stdts
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 428 Community Power and Grass Roots Politics Credits: 3
This course is designed to introduce students involved in volunteer or community activism in the Madison area to the literature on political power and community organizing. Students are required to conduct field research and write an analysis of their activities. Prereq: Jr st; prior course in American government recommended
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

POLI SCI 431 Contentious Politics Credits: 3 - 4
Social movements, revolutions, and riots continually shape and re-shape the world around us. The course will evaluate and apply dominant theoretical approaches to understanding contention through careful attention to empirical cases throughout the world. Prereq: Sophomore Standing and either POLI SCI 103 or INTL ST 101
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 433 Religion and Politics Credits: 3 - 4
Explores the relationships and interactions between religion and politics from a comparative perspective. The course will discuss the appropriate relationship between religion and state. In the first part of the course students will investigate the implications of the various ways in which the religion-state relationship have been involved in political conflict. Building on this, the course will then turn to several of the current issues in religion and politics asking: Why is religion apparently more important than ever despite an increasingly secular world? What is religious nationalism? What is fundamentalism? How can we explain the similarities and differences between religious fundament
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
In this course, we will review what political inequality is, and examine how scholars have measured it, and studied its causes, effects, and remedies. The course will focus on inequalities in political participation and representation.

Prereq: Sophomore standing

L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

Nationalist conflict and ethnic contestation remain major components of global politics. Drawing on cases from around the world, this course explores why this is the case. In the process, we will address a number of crucial questions: What are nations and ethnic groups? Where do they come from? Why do they pick particular territories? How do they define who can be part of the group? Why are they so successful in mobilizing people to kill and be killed? In the course of answering these questions, the course investigates the interactions between nations and states, religion and nationalism, globalization, citizenship and minority rights, and the causes and solutions for national and ethnic con

Prereq: Jr st & one crse in poli sci or cons inst

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

Policy-oriented course covering defense, domestic politics, defense economics, alliances, and arms control in the context of American national security in the post-World War II era. Prereq: Jr st, Poli Sci 104, 184 or 404; Poli Sci 103, 275 or 375

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

Role of administration in modern government; problems of organization, control, personnel, and finance. Prereq: Jr st & Poli Sci 104, 184 or 404; or cons inst

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

Analysis of US regulatory policy from a political perspective. Introduction of regulation theories from political science, law and economics. Evaluation of theories in settings of environmental protection, workplace health and safety, financial, communications and other areas of regulation. Prereq: Jr st & one crse in poli sci

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

Problems of public policy and administration for development and use of natural resources. Prereq: Jr st

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

Substantive and procedural aspects of criminal law, including the purposes of criminal justice, specific crimes, criminal responsibility and punishment, legal concepts of proof, and 4th, 5th, and 6th Amendment issues. The case approach is used. Prereq: Jr st and prev crse in poli sci or soc

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

RACE in relation to American economic development. Problems of racial minorities in the American political and economic system. Prereq: Intro to Chicano studies or Afro-Amer politics or Poli Sci 104, 184 or 404

L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
POLI SCI 463 Deception and Politics Credits: 4
This course deals with deception and truth telling as matters of fundamental political concern. Writers ranging from Plato to John Rawls have grappled with the problem of deception and truth-telling in politics. Flattery, hypocrisy, lying as a matter of state, lying as a matter of policy: philosophical explorations of these and related phenomena are at the center of this course. Prereq: Sophomore standing
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 464 Mexican-American Politics Credits: 3 - 4
This class examines the major problems and issues in Mexican-American politics since World War II. An emphasis will be placed on the ways in which race, class and culture have structured politics for the Mexican origin people. Prereq: Junior standing & Poli Sci 104, 184 or 404 or intro course in Chicano studies or intro course in Afro-Amer studies or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 466 Campaign Finance Credits: 3 - 4
Examination of campaign finance, including: the philosophical rationale behind campaign finance regulations, the history of regulatory frameworks, the influence of campaign contributions on decision making, campaign finance laws in other countries, and reform proposals. Prereq: One prev crse in poli sci
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 467 Elections and Voting Behavior Credits: 3 - 4
Psychological and social components of voting behavior, current electoral trends, role of voters in the governing process. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 468 Election Campaign Practicum Credits: 3
Techniques and strategies of election campaigning in their legal, social, ideological and historical contexts; explanations of electoral outcomes. Students will concurrently work in campaigns of their choosing, and analyze their experiences. Prereq: Jr st. Not open to Grad students
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 469 Women and Politics Credits: 3 - 4
Changing political roles, status, attitudes, and behaviors of women in contemporary society and of the political implications of changing female/male relationships. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 470 The First Amendment Credits: 3 - 4
An examination of the basic principles, purposes, and assumptions of First Amendment cases and literature, with attention to both historical and contemporary controversies. Prereq: Prev crse in Amer government, law, or related subject
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 471 Civil Liberties in the United States Credits: 3 - 4
American constitutional context, rights of conscience and expression; rights of defendants; equal protection of the laws; vindication of rights; proposals for reform. Prereq: Jr st & Poli Sci 104, 184, 217 or 404; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 472 Interest Group Politics Credits: 3 - 4
Internal politics of labor unions, business and professional associations, and farm groups; techniques employed in advancing their policies in government. Prereq: Jr st & Poli Sci 104, 184 or 404; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
POLI SCI 473 Public Opinion Credits: 3 - 4
Formation of opinions within and among the political publics; their role in the development and practice of governmental policy. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 478 Washington Internship Credits: 3
In addition to an internship of a minimum of eight hours per week, students will attend a weekly two-hour seminar. Seminar topics will include: the legislative process, congressional-executive relations, the role of interest groups in public policy making, etc. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 479 Political Communications Credits: 3 - 4
Effects of communications on elite and mass political beliefs; the characteristics and functions of political language; politics and the media; symbolic politics. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 481 Honors Seminar on Race and Politics in the United States Credits: 3
This course examines the sources and policy implications of racial division in American politics by analyzing a range of issues, such as affirmative action in the workplace and in higher education, the use of black majority districts as a means of enhancing representation of minority interests in Congress, differences in public opinion between whites and blacks, and issues concerning multi-racial and ethnic tensions. We will examine the historical background of race relations and the current policy debates, with a focus on trying to find common-ground solutions. The goal of this seminar is to stimulate critical thinking on this important issue, causing students to think about race and politi
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 490 Study Abroad Topics in Political Science: American Government Credits: 1 - 4
An umbrella course for variable credit American government courses taken on study abroad programs. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 501 Development of Ancient and Medieval Western Political Thought Credits: 3 - 4
Basic political ideas in the classical and European tradition to Machiavelli, related to contemporary problems.
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 502 The Development of Modern Western Political Thought Credits: 3 - 4
Basic political ideas in the European tradition since Machiavelli, related to contemporary problems. Prereq: So st. Poli Sci 501 recommended, or prior crse in political theory, philos, or ILS
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 503 Contemporary Political Thought Credits: 3 - 4
A survey of influential works and themes in contemporary political theory, considering such topics as distributive justice, democratic deliberation, multiculturalism, community, pragmatism, and the existential challenges of liberalism. Prereq: Jr st or cons inst. Prior crse in political theory, philos, or ILS recommended
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 505 The Challenge of Democratization Credits: 3 - 4
Focusing on political philosophy and/or comparative institutions, cultures, economic systems and behavior, the course explores debates over what democracy is, the dynamics of breakthroughs from authoritarianism to democracy and the difficulties in consolidating fledgling democracies. Prereq: Jr st or cons inst; prior crswork in political theory, philos and/or comparative politics highly recom
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
POLI SCI 506 Topics in Political Philosophy Credits: 3 - 4
Investigation at an advanced level of selected problems in political philosophy. Prereq: Jr st or cons inst. Prior crse in political theory, philos, or ILS recommended
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 513 Radical Political Theory Credits: 3 - 4
The course will explore in depth Marxist and other radical critiques of liberal democracy that have been influential in the 20th century. Prereq: ILS 206, History 513 or crse in political theory or political philos, or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

POLI SCI 517 Feminist Political Theory Credits: 3 - 4
18th through 20th century feminist theory within the conventions and discourse of traditional political theory; contemporary feminism from a theoretical point of view. Prereq: Jr st or cons inst. Prior crse in political thry highly recommended
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 519 African American Political Theory Credits: 3 - 4
Explores a range of theories that African Americans have drawn upon to cope with and ameliorate their political circumstances in the United States within the specific parameters of political theory. Prereq: One crse in political theory, moral philos or Afro-Amer studies highly recommended
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 534 Socialism and Transitions to the Market Credits: 3 - 4
Course focusing on state socialism as a political and economic system and the transition from that system in Eastern Europe, the former Soviet Union, China, and elsewhere. Prereq: POLI SCI 120 (POLI SCI 106 prior to Fall 2017)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 538 Politics and Policies in the European Union Credits: 3 - 4
An advanced undergraduate seminar on the European Union that introduces students to the academic literature on EU politics and current debates in the field of EU studies. Topics covered include political institutions, decision- and policy-making, parties, elections, interest representation, political contestation, public opinion, enlargement, the "democratic deficit," and current events- most importantly the ongoing Euro crisis. Prereq: Sophomore standing & POLI SCI 120 or 182 (or POLI SCI 106 or 186 prior to Fall 2017)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 544 Introduction to Survey Research Credits: 3
Theory and practice of survey research; planning, sampling, questionnaire construction, interviewing, content analysis, machine tabulation, analysis of data; two hours lecture; two hours lab or field work. Prereq: Junior standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 551 Introduction to Statistical Inference for Political Research Credits: 3 - 4
Basic statistics course intended to provide students skills essential to read quantitative literature in Political Science and use basic empirical analyses. Fundamentals of probability theory and statistical inference up through bivariate regression and correlation. Prereq: Completion of QRA. So st General Education: OR-B  L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 552 Multivariable Statistical Inference for Political Research Credits: 3 - 4
Extensive treatment of multiple regression and its variants. Prereq: Poli Sci 551 or equiv
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 553 Introduction to Statistical Computing in Political Science Credits: 1 - 3
Introduction to the issues of statistical computing in political science using statistical packages such as STATA and R with emphasis on developing sound practices for organizing data, protocols, and results in empirical research. Prereq: Grad st or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
POLI SCI 565 History of American Political Thought Credits: 3 - 4
The intellectual origins and evolution of American political thought as seen through the lens of leading politicians, novelists and social critics from the Puritans to the Civil War; consideration of the central tensions of American political thought from a contemporary perspective. Prereq: Jr st or cons inst. Prior crse in political theory, philos, or ILS recommended
L&S Breadth: Humanities   L&S Level: Intermediate/Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring, Summer

POLI SCI 566 Contemporary American Political Thought Credits: 3 - 4
Prereq: Jr st. Prior crse in political theory, philos, or ILS recommended
L&S Breadth: Humanities   L&S Level: Intermediate/Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

POLI SCI 570 Literature and Politics Credits: 3 - 4
Interactions between literature and politics, and the role of literature more generally in the functioning of the political systems. Prereq: Jr st
L&S Breadth: Social Science   L&S Level: Intermediate/Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

POLI SCI 590 Study Abroad Topics in Political Science: Political Theory Credits: 1 - 4
An umbrella course for variable3 credit political theory courses taken in study abroad programs. Prereq: Jr st
L&S Breadth: Humanities   L&S Level: Intermediate   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

POLI SCI 601 Proseminar: Topics in Political Science Credits: 3
Intensive study and research in selected problems within the constituent fields of political science. Prereq: Admission by consent of instructor only Poli Sci majors: Senior standing and qualified Juniors: Not open to Grad students
L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Occasionally

POLI SCI 602 Wisconsin in Washington Advanced Public Policy Course Credits: 4
The public policy process is structured argument and decision making within institutional contexts. This class introduces students to analytic frameworks for thinking about various aspects of this process. We do not study a single context or policy, but, rather, seek to understand how policies might succeed (or fail) in one context or another. The principal framework is institutional analysis, or the way in which formal and informal rules shape policies and their outcomes. Students will learn to perform institutional analysis as well as write a memorandum presenting such an analysis to a policymaker. Students will align their final projects to their personal and professional activities and/o
L&S Breadth: Social Science   L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring, Summer

POLI SCI 611 Comparative Political Economy Credits: 3 - 4
Comparative approaches to the study of political economy and economic policy-making in capitalist democracies. Topics include theories of capitalism, the welfare state, trade, finance, and labor markets. Prereq: Jr st; Poli Sci 106, 186 or 312; & a crse in econ recommended
L&S Breadth: Social Science   L&S Level: Intermediate/Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring, Summer

POLI SCI 616 Comparative Politics of Sport Credits: 3 - 4
Covers the political economy, political culture, and the politics of identity (nationalism, race, ethnicity, social class, religion, and gender) that is usually associated with sport at both the highest and lowest levels of competition. Prereq: Poli Sci 106 & Jr st
L&S Breadth: Social Science   L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring

POLI SCI 617 Comparative Legal Institutions Credits: 3 - 4
A comparison of the role of law and legal institutions in the U.S. and other countries, with a focus on the state's use of law to achieve its political goals. Prereq: Poli Sci 106, 186 or 217 or cons inst
L&S Breadth: Social Science   L&S Level: Intermediate/Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring, Summer

POLI SCI 618 Political Islam Credits: 3 - 4
Examines the political origins of contemporary Islamist movements and their impact upon Middle Eastern politics. Prereq: Jr st or cons inst
L&S Breadth: Social Science   L&S Level: Advanced   L&S Credit: Counts for LAS credit   Typically Offered: Fall, Spring
POLI SCI 630 Latin-American Politics Credits: 3 - 4
Contemporary political problems in Latin America; emphasis on political economy, political instability, social movements, and democratization. Prereq: Jr st; Poli Sci 106 or 186; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 631 Arab-Israeli Conflict Credits: 3 - 4
Examines the political, social, and economic aspects of the evolution of the Arab-Israeli conflict over time, and the theoretical and policy issues it raises. Prereq: Jr st and Poli Sci 103 or 106
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

POLI SCI 633 Russian Politics Credits: 3 - 4
Theory and practice of Russian States, emphasis on politics, economic and institutional developments since 1991. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 639 Politics of Southeast Asia Credits: 3 - 4
Comparative analysis of such issues as state formation, state-society relations, the politics of economic development, tensions between authoritarianism and democracy, and the politics of identity, with particular attention to a select number of major countries of Southeast Asia. Prereq: Jr st; Poli Sci 106 or 186; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 640 Politics of Japan Credits: 3 - 4
Political institutions and behavior in contemporary Japan. Social structure, values, and institutions as they have affected political development up to the present; the interaction of political culture, leadership, political parties, interest groups, ideology, and other forces in shaping political life in post-industrial Japan. Prereq: Jr st. Poli Sci 106, 186 or 342 or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 642 Political Power in Contemporary China Credits: 3 - 4
Analysis of the major institutions, ideas, people and groups in China today and their impact on power, decision-making and social change. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 643 Women and Politics in a Global Context Credits: 3 - 4
Examines in a global comparative context what has facilitated and held back women's political representation and the implications of women's exclusions from public life. It examines the consequences of unequal political representation.
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 651 Politics of South Asia Credits: 3 - 4
Introduces students to the history and politics of the region with a special focus on India, Pakistan, and Sri Lanka and the regional and international contexts of South Asia. Prereq: Jr st; Poli Sci 106 or 186; or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 652 The Politics of Development Credits: 3 - 4
This course examines the political foundations, political dynamics, and political impact of economic development in the many regions collectively known as the "developing world" or "Third World". Prereq: Poli Sci 106, Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 654 Politics of Revolution Credits: 3 - 4
An analysis of the causes, methods, processes, and consequences of revolutionary movements. Prereq: So st with previous course in poli sci
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
POLI SCI 656 Electoral Systems and Representation Credits: 3 - 4
The variety of institutions which are used to structure elections and representation around the world; voting rules, the structure of the legislature, cabinet formation, constitutional engineering and the art of political manipulation. Prereq: One crse in poli sci or cons inst L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

POLI SCI 657 Comparative Political Culture Credits: 3 - 4
In addition to political culture as conventionally defined, this course examines alternative political realities and the different understandings of politics that flow from them. It explores in detail the intersections between the realms of politics and culture in various selected regions of the world. Prereq: Poli Sci 106, Jr st, or cons inst L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

POLI SCI 659 Politics and Society: Contemporary Eastern Europe Credits: 3 - 4
Comparative analysis of the countries of contemporary Eastern Europe, including issues of democratization, economic transition, and social change; political crises and institutional adjustments; interactions between regimes and domestic social forces; prospect for future systemic change. Prereq: Jr st; Poli Sci 106 or 186; or cons inst L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

POLI SCI 660 African Politics Credits: 3 - 4
Process of rapid political change in contemporary Africa with special emphasis on the emergence of new states. Prereq: Jr st & Poli Sci 106 or 186 recommend L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

POLI SCI 663 South Asia and the Global System: Economy, Security & Culture Credits: 3 - 4
Examines the effect of international forces on some countries of the South Asia region (India, Pakistan, Sri Lanka, and Afghanistan) as well as how state and societal responses affect the prospects of security, prosperity, and cultural integration in the world. Prereq: Poli Sci 106 L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

POLI SCI 665 Israeli Politics and Society Credits: 3 - 4
Course provides historical and analytical understanding of Israeli internal political life and institutions. Attention will be paid to political culture, coalition formation and ethnic politics as they are manifested in Israeli politics. The effect of regional conflict upon Israel's domestic politics will also be considered. Prereq: Jr st & intro class in poli sci L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

POLI SCI 681 Senior Honors Thesis Credits: 3 - 4
Individual study and research for majors writing theses for honors degree. Prereq: Only Sr majors writing honors thesis & cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

POLI SCI 682 Senior Honors Thesis Credits: 3 - 4
Continuation of 681. Prereq: Only Sr majors writing honors thesis and cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

POLI SCI 683 Senior Honors Thesis Seminar Credits: 3
A class for honors students writing their senior honors thesis within a seminar format. Focus is on conceptualization, research design, writing of the thesis, and relevant issues of political science. Only senior majors writing honor thesis. Prereq: Enrollment in Honors Progm; Sr st; & cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

POLI SCI 684 Senior Honors Thesis Seminar Credits: 3
A class for honors students writing their senior honors thesis within a seminar format. Focus is on conceptualization, research design, writing of the thesis, and relevant issues of political science. Continuation of 683. Seniors only. Prereq: Enrollment in Honors Progm; Sr st; Poli Sci 683; & cons inst L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
POLI SCI 685 Honors Research Internship in Political Science Credits: 1 - 3
The internship program is designed to provide honor students with opportunities to work closely with faculty on research projects of mutual interest. Prereq: Political science major; in honors prgm; cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 690 Study Abroad Topics in Political Science: Comparative Politics Credits: 1 - 4
An umbrella course for variable credit comparative politics courses taken on study abroad programs. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 691 Senior Thesis Credits: 3
Prereq: Poli Sci or International Relations major, Sr st, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 692 Senior Thesis Credits: 3
Prereq: Poli Sci or International Relations major, Sr st, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

POLI SCI 698 Directed Study Credits: 1 - 4
Prereq: Jr or Sr st. Graded on Cr/N basis; requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

POLI SCI 699 Directed Study Credits: 1 - 4
Prereq: Jr or Sr st. Graded on lettered basis; requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

POLI SCI 700 Introduction to International Politics Credits: 1
This course is designed to introduce students to the essential theoretical approaches to international politics, to explore important historical and contemporary questions and debates in international affairs, and to teach students to think critically about international relations. The course also introduces students to the skills and methods necessary for successful online learning. Prereq: Only to students admitted to the International Politics and Practice program
Typically Offered: Summer

POLI SCI 701 American Foreign Policy Credits: 3
The course is provides a historical and analytical examination of U.S. Foreign Policy since World War II. The course is divided into three main topics: (1) the history of U.S. Foreign Policy since World War II, (2) an examination of the institutions and processes that guide foreign policy formation and implementation, and (3) a review and analysis of salient foreign policy challenges facing the U.S. today. Prereq: PS 700 or concurrent registration or consent of instructor
Typically Offered: Summer

POLI SCI 702 International Political Economy Credits: 3
Analyzes the interaction of politics and economics in the international arena, both historically and in the contemporary era of globalization. Focuses on international trade, monetary, and financial relations in both developed and developing economies. Prereq: Political Science 700 or concurrent registration or consent of instructor
Typically Offered: Summer

POLI SCI 703 International Organizations and Law Credits: 3
This course is intended to familiarize students with some of the major international organizations (IOs) and regimes of international law that have a profound effect on patterns of international cooperation and conflict. Prereq: Political Science 700 or concurrent registration or consent of instructor
Typically Offered: Summer

POLI SCI 704 International Security Credits: 3
The course is a survey of security studies in international relations. The course is organized by empirical topic, with a mix of theoretical and empirical readings for most weeks. Topics include arms competition, the causes of war, war termination, third party intervention and conflict resolution, alliances, crisis bargaining, cooperation, deterrence, proliferation and terrorism. The emphasis will be on recent work. Prereq: Political Science 700 or concurrent registration or consent of instructor
Typically Offered: Summer
How powerful is non-military power? What are its vectors and its limits? International relations theorists have defined soft power as "the ability to get what you want through attraction rather than coercion." This graduate seminar will put this notion to the test. We will investigate how elites, interest groups, religious bodies, and nation-states seek to exercise hegemony in the international order through non-violent means. How was "soft power" implemented on the ground in the 20th century- and how did its use transform international relations? To probe these questions, we will focus on a series of case studies in European and U.S. international history. Topics covered include the expansi

Typically Offered: Fall, Spring

POLI SCI 742 International Development Planning Theory Credits: 3
Provides students with a historical and theoretical foundation for critical thinking about international development planning. Prereq: Grad st or cons inst
Typically Offered: Occasionally

POLI SCI 799 Directed Study Credits: 1 - 4
Directed Study restricted to graduate students. Intended for master's level students. Prereq: Graduate standing
Typically Offered: Fall, Spring, Summer

POLI SCI 800 Political Science as a Discipline and Profession Credits: 1
Describes and evaluates major approaches used in political science. Explores issues related to professional development and political science careers. Prereq: 1st yr doctoral stdt in poli sci
Typically Offered: Occasionally

POLI SCI 801 Research and Writing Seminar Credits: 3
Intended for PhD students in political science to develop a seminar or conference paper into a publishable journal article. Emphasis on editing, revising, and peer feedback. Prereq: Enrollment in political science PhD program
Typically Offered: Occasionally

POLI SCI 804 Interdisciplinary Western European Area Studies Seminar Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

POLI SCI 812 Introduction to Statistical Methods in Political Science Credits: 3
Introductory statistics course for Ph.D. students. Emphasis on probability theory, inference, and the foundations of multivariate least squares and maximum likelihood. Prereq: Enrollment in Poli Sci Ph.D. program or cons inst
Typically Offered: Fall

POLI SCI 813 Multivariable Statistical Inference for Political Research Credits: 3
Extensive treatment of multiple regression and its variants. Prereq: Poli Sci 812 or equiv
Typically Offered: Spring

POLI SCI 814 Social Identities: Definition and Measurement Credits: 3
Analyzes the concept of social identities with a focus on definition, comparison, and measurement. Explores a range of theories as well as methodological techniques for measurement. Examines classic works on race, ethnic, national, class, gender, and religious identities. Prereq: Grad st
Typically Offered: Fall

POLI SCI 817 Empirical Methods of Political Inquiry Credits: 3
Acquaints students with a wide variety of research methods used to analyze political phenomena, emphasizing both quantitative and qualitative approaches. Prereq: Graduate standing
Typically Offered: Occasionally

POLI SCI 818 Maximum Likelihood Estimation Credits: 3
Develops the theory of maximum likelihood estimation and applies it to models for discrete and limited dependent variables common to political and social science data. Prereq: POLI SCI 812 and POLI SCI 813
Typically Offered: Occasionally

POLI SCI 821 Mass Political Behavior Credits: 3
An empirical analysis of the role of mass publics in political life and the factors which determine the formation and expression of political beliefs and attitudes. Prereq: Grad st
Typically Offered: Occasionally
POLI SCI 823 Political Psychology Credits: 3
The relationship between psychological processes and political thinking and behavior. Topics may include the development and functioning of mass and elite level ideology and behavior, political communication, decision-making, perception, and the impact of political experiences on psychological states and processes. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 825 Race and Politics in the United States Credits: 3
Analysis of the role of race, class and ethnicity in the political process. Evaluation of theories from political science, economics and sociology. Topics may include policy analysis, political organizations, immigration, political behavior and culture. Prereq: Grad st
L&S Level: Advanced Typically Offered: Occasionally

POLI SCI 826 The Legislative Process Credits: 3
Analysis of legislative process and the role of the legislature in the political system, emphasizing current research. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 827 Interest Groups in American Politics Credits: 3
The formation, structure, activities and power of interest groups in the United States with comparisons to interest groups in other countries. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 828 The Contemporary Presidency: Issues and Approaches Credits: 3
Current topics of research interest on the American presidency. Alternative approaches and methods for the study of the presidency. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 829 Political Communication Credits: 3
This course examines the role of communication in American politics. Topics covered include the communication of politics (e.g., communication by politics elites, effects of mass media and interpersonal communication on political attitudes) as well as the politics of communications (regulation of political communication, policy issues, etc.). Prereq: Grad st or cons inst
Typically Offered: Occasionally

POLI SCI 830 Constitutional Theory Credits: 3
A review of a variety of modern approaches to constitutionalism and its challenges from a theoretical and comparative perspective. Prereq: Grad st
Typically Offered: Fall, Spring

POLI SCI 831 Concepts in Political Theory Credits: 3
Studies in normative, analytical, or historical thought about politics. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 833 Topics in Ancient Political Thought Credits: 3
Considers varied topics in Greek, Roman, early Christian and Medieval political thought; topics in non-Western ancient and medieval thought may also be offered. Prereq: Grad st
Typically Offered: Spring

POLI SCI 835 Game Theory and Political Analysis Credits: 3
An introduction to the tools of game theoretic analysis, with reference to the use of game theory in political science. Intended for those desiring a basic familiarity with the theory, and for those planning further work in formal modeling. Prereq: Grad st
Typically Offered: Spring

POLI SCI 836 Formal Models of Domestic Politics Credits: 3
Provides an overview of formal, i.e., game-theoretic, models of domestic politics. This course builds directly upon the material presented in Political Science 835. Prereq: Poli Sci 835; working knowledge of basic differential & integral calculus
Typically Offered: Occasionally
POLI SCI 837 Formal Models of International Relations Credits: 3
Provides an overview of the formal theory literature in international relations, including international security and international political economy. Prereq: Grad st & Poli Sci 835
Typically Offered: Occasionally

POLI SCI 839 Methods of Political Theory Credits: 3
An overview of the central disciplinary approaches to interpreting, teaching, and writing about philosophical texts. Prereq: Grad st
Typically Offered: Spring

POLI SCI 840 Comparative Political Economy Credits: 3
Survey of field of comparative political economy and in-depth study of political economy of democratic and non-democratic capitalist systems. Key themes include: business and labor relations, globalization and its impact on domestic political economies, rise of emergent powers. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 853 Comparative Political Institutions Credits: 3
Comparative theoretical and empirical analysis of political institutions, including electoral systems, legislatures, executives, executive-legislative relationships, political parties, party systems, federalism, economic governance, and link between institutions and internationalization. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 854 Nationalism and Ethnic Conflict Credits: 3
Comparative analysis of nationalism, national identity, and ethnicity and their impact on domestic and international conflict. Examines relationship between nationality, citizenship, and minority rights; territoriality and identity, contemporary religious nationalism; relationship between globalization and nationalism. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 855 Politics and Culture in Comparative Perspective Credits: 3
Scholarly approaches linking cultural phenomena. Both theoretical and empirical patterns of politics and culture in several regions. The course also explores systematic linkages between politics and culture, evaluates common ways of studying them, and assesses their contemporary importance. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 856 Field Seminar in Comparative Politics Credits: 3
A broad introduction to the field of comparative politics. It combines a theory-driven approach with a problem-driven approach to analyze key themes in comparative politics. Four paradigms in comparative politics--structural, cultural, rational-choice and institutional--will be reviewed. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 857 International Relations Theories Credits: 3
Analysis of the major theories on the functioning of the international political system and the behavior of nations within it. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 861 Challenges of Democratization Credits: 3
Explores the problems of crafting democracies in the broadest comparative perspectives to comprehend the benefit of democracy. Covers democratic drafting in terms of center/federalism, president/parliament, voting systems, party systems, civilian control of the military, etc.; as these relate to particulars of religion, region, language and other communalist identity. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 862 State and Society in Comparative Perspective Credits: 3
Reviews a range of approaches that focus on civil society, social movements, ethnic and religious based mobilization, as well as gender and class based approaches to state-society relations. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 863 The Judicial Process Credits: 3
Analysis of the decision-making processes of judicial institutions and the behavior of judges, litigants, lawyers, and other actors in the judicial process. Strong emphasis on the relationship between judicial and other policy-making institutions and actors. Prereq: Grad st
Typically Offered: Occasionally
POLI SCI 864 International Political Economy Credits: 3
Analysis of key classical and contemporary theories in international political economy. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 865 The Supreme Court and the Constitution in American Politics Credits: 3
Analysis of the development of major constitutional doctrines and their impact on politics and public policy in the United States. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 866 Global Environmental Governance Credits: 3
In-depth examination of the political and policy challenges posed by global environmental degradation. Analysis of international institutions for managing the global environment. Prereq: Grad st or cons inst
Typically Offered: Occasionally

POLI SCI 871 Public Program Evaluation Credits: 3
Compares the conceptual, statistical, and ethical issues of experimental, quasi-experimental and non-experimental designs for program evaluation. Definitions of outcomes, sample size issues, statistical biases in measuring causal effects of programs, and the reliability of findings will be emphasized using case studies selected from current public programs. Prereq: Grad st & Pub Affr 818 or equiv, or cons inst
Typically Offered: Occasionally

POLI SCI 873 American Political Parties Credits: 3
Reviews major approaches to analyzing political parties and understanding their developmental changes. Examines the parties in operation and the relationship of parties to the state and society. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 874 Policy-Making Process Credits: 3
An intensive study of policy-making processes involved in the formulation of public policies. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 875 Public Personnel Administration Credits: 3
Analysis of personnel policies and practices in the public sector and examination of patterns of interaction between political executives, personnel professionals, public employees, and interest groups in the development of personnel policies. Compares problems and approaches of different countries as well as those of the various levels of government in the United States. Prereq: Grad st or cons inst
Typically Offered: Occasionally

POLI SCI 878 Public Management Credits: 3
Role of administration in American government; problems of organization, bureaucracy and control; public policy as the output of the administrative process. Prereq: Grad standing
Typically Offered: Occasionally

POLI SCI 881 American Political Development Credits: 3
Examination of critical transformations in the structure and activities of the U.S. national state; political models of economic development; periodization versus non-periodization approaches; topics include liberalism and republicanism, southern exceptionalism, labor, race, populism, war and statebuilding; construction of the corporate economy. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 885 Advanced Public Management: Craft, Constraints and Accountability Credits: 3
Examines how managers in public and not-for-profit agencies can secure and utilize legal authority, human resources, and funds to accomplish organizational goals. Includes strategies for establishing and maintaining effective external relations and for working through other organizations to accomplish objectives. Prereq: Pub Affr 878
Typically Offered: Occasionally

POLI SCI 890 Federal Budget and Tax Policy and Administration Credits: 3
Focuses on national budget and tax policy and administration, and the parallel processes at the state and local levels. Included are discussions of: decision-making theories; budget and tax policy; and analysis of normative and empirical criteria and analytical techniques for assessing alternative policy proposals. Prereq: Grad st or cons inst
Typically Offered: Occasionally
POLI SCI 900 Topics in Political Science  Credits: 1 - 3
An umbrella course for variable credit topic courses, such as colloquia series, workshops, intensive summer courses, half-semester courses, etc. Prereq: Grad st. Prerequisites will vary according to topic
Typically Offered: Occasionally

POLI SCI 904 Seminar-American Politics  Credits: 3
In-depth examination of selected topics on American politics and governmental institutions. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 917 Time Series Analysis  Credits: 3
This course introduces students to time series methods and applications, including ARMA models, error corrections models and reduced form specifications. Course also discusses co-integration and fractional integration. Prereq: Grad st & Poli Sci 551 & 552
Typically Offered: Occasionally

POLI SCI 919 Seminar-Advanced Methodology  Credits: 3
Design of research and adaptation of advanced methods to solve particular methodological problems in original analyses of political data. Prereq: Graduate standing required; prerequisites will vary
Typically Offered: Occasionally

POLI SCI 931 Seminar-Political Theory  Credits: 3
Analysis of and research on problems of theorizing in and about political life. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 933 Feminist Political Theory  Credits: 3
Focuses on how specific schools of feminist thought redefine the political, spanning historical and contemporary feminist political theory. Prereq: Grad St
Typically Offered: Fall, Spring, Summer

POLI SCI 940 Domestic Politics of International Relations  Credits: 3
Examines how domestic institutions and processes influence the international system. Also examines how international forces influence domestic politics in the areas of foreign policy, international political economy and security. Prereq: Poli Sci 857 & Grad st
Typically Offered: Occasionally

POLI SCI 945 Seminar-National Security Affairs  Credits: 3
Contemporary military strategy, the interaction of military and political factors in international politics, and the processes and content of defense policies, with emphasis on the United States. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 948 Seminar: Topics in Comparative Politics  Credits: 3
Research seminar on specific topics in comparative politics. Prereq: Grad st or cons inst
L&S Level: Advanced  Typically Offered: Occasionally

POLI SCI 949 Seminar-Post Communist Politics  Credits: 3
Comparative study of political processes in the former Soviet Union and communist Eastern Europe states, focusing on the transition from and the continuing legacies of the communist experience; methodological issues in the study of post-communist politics. Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 959 Seminar-International Organization  Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 960 Seminar-International Relations  Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 961 Seminar-African Politics  Credits: 3
Comparative study of political processes in the emerging states of Africa; emphasis on tropical African states with some consideration to the Mahgreb and Southern Africa; methodological problems in the study of African politics. Prereq: None
Typically Offered: Occasionally
POLI SCI 962 Seminar: Latin-American Politics Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

POLI SCI 969 Seminar-Trends and Issues in Public Planning Credits: 3
Critical review of recent and current thought on the nature and role of planning in governmental and quasi-governmental agencies with particular attention to the adverse critics of planning and the issues they raise about the policy formulation process in public affairs. Prereq: Cons inst
Typically Offered: Occasionally

POLI SCI 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

POLI SCI 983 Interdepartmental Seminar-African Studies Credits: 3
Interdisciplinary inquiry in African society and culture. Prereq: Grad st or cons inst
Typically Offered: Occasionally

POLI SCI 986 Political Theory Workshop Credits: 1 - 3
Presentation and evaluation of political theory research in progress by members of the workshop and invited speakers. Prereq: Enrolled in Political Science graduate program or consent of instructor
Typically Offered: Occasionally

POLI SCI 987 Comparative Politics Colloquium Credits: 1 - 3
Presentation and evaluation of comparative politics research in progress by members of the workshop and invited speakers. Prereq: Enrollment in the Political Science doctoral program or cons inst
Typically Offered: Fall, Spring

POLI SCI 988 International Relations Workshop Credits: 1 - 3
Presentation and evaluation of International Relations research in progress by members of the workshop and invited speakers. Prereq: Enrollment in the Poli Sci doctoral program or cons inst
Typically Offered: Fall, Spring

POLI SCI 989 American Politics Workshop Credits: 1 - 3
Presentation and evaluation of American politics research in progress by members of the workshop and invited speakers. Prereq: Enroll in the Political Science doctoral program or cons inst
Typically Offered: Fall, Spring

POLI SCI 990 Research and Thesis Credits: 1 - 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

POLI SCI 999 Independent Work Credits: 2 - 3
Under the direction of a staff member. Prereq: Grad st & written cons inst
Typically Offered: Occasionally

PORTUGUESE (SPANISH & PORTUG)

PORTUG 101 First Semester Portuguese Credits: 4
Grammar, conversation, and reading. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

PORTUG 102 Second Semester Portuguese Credits: 4
Continuation of 101. Prereq: Portuguese 101. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

PORTUG 201 Third Semester Portuguese Credits: 4
Prereq: Portuguese 102. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
PORTUG 202 Fourth Semester Portuguese  Credits: 4
Continuation of 201. Prereq: Portuguese 201. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PORTUG 207 Portuguese for Business Credits: 4
A second year Portuguese language course focusing on needs specific to business. Prereq: Portuguese 101/102 or 301 or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PORTUG 221 Introduction to Luso-Brazilian Literatures Credits: 4
Reading, discussion, literary history. Sixteenth, nineteenth and twentieth centuries. Prereq: Portuguese 202 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PORTUG 225 Third Year Conversation and Composition Credits: 3
Prereq: Portuguese 202
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PORTUG 226 Third Year Conversation and Composition Credits: 3
Prereq: Portuguese 225
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PORTUG 230 Brazil and Brazilians in the United States Credits: 3
Examines the presence of Brazilian immigrants in the United States, Brazilian-United States diplomatic relations, and in particular, the cultural and artistic representation of Brazil and all things Brazilian in the United States. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 299 Directed Study Credits: 1 - 3
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PORTUG 301 Intensive Portuguese Credits: 4
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 302 Intensive Portuguese Credits: 4
Prereq: Portuguese 301
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PORTUG 311 Fourth Year Composition and Conversation Credits: 3
Advanced oral practice and writing. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PORTUG 312 Fourth Year Composition and Conversation Credits: 3
Continuation of 311. Prereq: Portuguese 311
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PORTUG 330 History of the Portuguese Language Credits: 3
An introduction to the linguistic sources and the historical and political factors that contributed to the formation of Portuguese and the current status of Portuguese in the world today. Prereq: Portuguese 311 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PORTUG 361 Portuguese Civilization Credits: 3
Lecture, readings and class discussion. Prereq: Open to all undergrads
General Education: COM B  L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PORTUG 362 Brazilian Civilization Credits: 3
Continuation of 361. Prereq: Portuguese 225/226 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
PORTUG 364 Historical and Cultural Traditions of Brazil  Credits: 2  
Prereq:  Portuguese 363 or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 411 Survey of Portuguese Literature before 1825  Credits: 3  
Advanced survey of Portuguese literature from 1140 to 1825.  Prereq:  Portuguese 221 & 311/312 or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PORTUG 412 Survey of Brazilian Literature before 1890  Credits: 3  
Advanced survey of Brazilian literature from 1500 to 1890.  Prereq:  Portuguese 221 & 311/312 or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PORTUG 429 Introduction to the Romance Languages  Credits: 3  
Introduction to structural similarities and differences apparent in major Romance languages (French, Italian, Portuguese, Spanish) and to their historical developments, with reference to basic linguistic features of each language: phonology, morphology, syntax, and lexicon. Does not count towards French major.  Prereq:  Span 226 or Portug 226 or French 228 or Ital 311, or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 450 Brazilian Women Writers  Credits: 3  
A survey of representative writing by contemporary Brazilian women writers in relation to representations of nationality, race, class, ethnicity, gender and sexualities.  Prereq:  Jr st or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 451 Lusophone African Literature  Credits: 3  
Chronological and thematic survey of major trends, authors, and works of Lusophone Africa since 1936.  Prereq:  Portuguese 221 & 311/312 or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 460 Carmen Miranda  Credits: 3  
This course examines the work, representation and interpretation of Carmen Miranda from her early days as a radio star in Brazil to a film actress and entertainer in Hollywood in the 1940s and 50s.  Prereq:  Jr st or cons inst  
Ethnic Studies: Yes  L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 467 Survey of Portuguese Literature since 1825  Credits: 3  
Advanced survey of Portuguese literature since 1825.  Prereq:  Portuguese 221 & 311/312 or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PORTUG 468 Survey of Brazilian Literature since 1890  Credits: 3  
Advanced survey of Brazilian literature since 1890.  Prereq:  Portuguese 221 & 311/312 or cons inst  
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PORTUG 573 Topics in Portuguese: Study Abroad  Credits: 1 - 6  
A course carried with a UW-Madison Study Abroad Program which has no equivalent on this campus.  Prereq:  None  
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PORTUG 640 Topics in Luso-Brazilian Literature  Credits: 3  
Prereq:  Portuguese 221 & 311/312 or cons inst  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PORTUG 642 Topics in Luso-Brazilian Culture  Credits: 3  
Examines a variety of cultural topics in relation to Portuguese-speaking countries.  Prereq:  Portug 311 or cons inst  
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PORTUG 681 Senior Honors Thesis  Credits: 3  
Prereq:  Cons inst  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
PORTUG 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

PORTUG 699 Directed Study Credits: 1 - 6
Prereq: Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PORTUG 707 Portuguese M.A. Proseminar Credits: 1
This course is designed to give new graduate students essential training in bibliography and research methods as well as exposure to faculty in the areas of Portuguese, Brazilian, and Lusophone African literature and linguistics.
Prereq: Acceptance in the Portuguese M.A. program at UW-Madison
Typically Offered: Occasionally

PORTUG 751 Seminar: Brazilian Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

PORTUG 772 Seminar: Portuguese Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

PORTUG 817 Romance Philology Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

PORTUG 899 Independent Reading Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PORTUG 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PORTUG 990 Thesis Credits: 1 - 12
Credit commensurate with work accomplished. Prereq: Consent of instructor
Typically Offered: Occasionally

PSYCHOLOGY

PSYCH 160 Human Sexuality: Social and Psychological Issues Credits: 3 - 4
Biological, psychological and sociological aspects of sexual relationships and behavior. The course presents theoretical and empirical materials on sexuality throughout the life-course, including childhood, adolescence, adulthood, and later life. Attention is given to gender, religion, education and the law as they relate to sexual expression in society. Prereq: Not open to students who have taken Soc/Psych 350
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PSYCH 201 Introduction to Psychology Credits: 4
Behavior, including its development, motivation, frustrations, emotion, intelligence, learning, forgetting, personality, language, thinking, and social behavior; lectures and discussions. Prereq: First Year or sophomore standing only. Not open to students who have taken PSYCH 202 or 281
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PSYCH 202 Introduction to Psychology Credits: 3
Behavior, including its development, motivation, frustrations, emotion, intelligence, learning, forgetting, personality, language, thinking, and social behavior. Prereq: Not open to students who have completed PSYCH 201 or 281
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
PSYCH 210 Basic Statistics for Psychology Credits: 3
Measures of central tendency, variability; probability, sampling distributions; hypothesis testing, confidence intervals; t-tests; Chi-square; regression and correlation (linear) and introduction to analysis of variance (1-way). Prereq: Satisfied Quantitative Reasoning (QR) A requirement; PSYCH 201 or 202 or 281 or concurrent enrollment
General Education: QR-B L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 211 Freshman Seminar in Psychology Credits: 3
The course will introduce students to research methods, theories, findings and current controversies in a focused area of psychology. See Timetable for topics. Prereq: Open to Fr L&S Breadth: Natural Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PSYCH 225 Research Methods Credits: 4
General characteristics of scientific method; use of experimental, observational, and correlational research designs; research methods used in psychological science; illustration of core issues in research methods taken from several areas of psychology; lecture, demonstration, and experiments. Prereq: Grade of C in (PSYCH 201, 202 or 281) and grade of C in (PSYCH 210, C&E SOC/SOC 360, STAT 371, or GEN BUS 303) General Education: COM B L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 280 Honors Basic Statistics for Psychology Credits: 4
Prereq: Completion of QRA; 201 or 202 & honor stdt or cons inst
General Education: OR-B L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

PSYCH 281 Honors Course-Introduction to Psychology Credits: 4
Prereq: Open to Fr L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 285 Honors Course - Research Methods Credits: 4
General characteristics of scientific method; use of experimental, observational, and correlational research designs; research methods used in psychological science; illustration of core issues in research methods taken from several areas of psychology; lecture, demonstration, and experiments. Prereq: Grade of C in (PSYCH 201, 202 or 281) and grade of C in (PSYCH 210, C&E SOC/SOC 360, STAT 371, or GEN BUS 303) and declared in an honors program General Education: COM B L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

PSYCH 310 Topics in Psychology: Study Abroad Credits: 1 - 6
A course carried with a UW-Madison Study Abroad Program which has no equivalent on this campus. Prereq: Current reg in a UW-Madison study abroad progm L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

PSYCH 311 Issues in Psychology Credits: 1 - 4
Topics vary with the instructor. Survey of topical issues. May be repeated. Prereq: Psych 201 or 202 or 281 or consent of instructor L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 325 Experimental Psychology for Graduate Students Credits: 4
Experimental research techniques and methodology as applied to various areas of psychology; lectures, lab experiments. Grad level of 225. Prereq: Grad level of Psych 225.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
PSYCH 349 Introduction to Human Factors Credits: 3
This course conveys the importance of considering human capabilities and limits in system design and operation. This includes understanding human characteristics from the cognitive, physical, and psychosocial perspectives. Implications of these characteristics are explored through understanding the needs of people, designing to support these needs, and evaluating systems to ensure they serve the intended purpose. Case studies are used to identify the human role in accidents and to identify design improvements. Application domains include consumer product design, human-computer interaction, workplace safety, and complex systems such as healthcare delivery. Prereq: Introduction to probabil
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 350 Human Sexuality Credits: 4
Provides an interdisciplinary introduction to biological, psychological, and sociological aspects of human sexuality. Prereq: Sophomore standing or consent of instructor. Not open to students who have taken Soc/Psych 160
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 386 Topics in Psychology for Honors Students Credits: 1
Current topics for honors students in psychology. Faculty will lead lecture/discussions about a wide range of topics such as child development, clinical psychology, perception, physiological psychology, and human learning. Prereq: 6 cr in psych, incl Psych 201/202 and So st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 399 Service Learning in Psychology Credits: 1 - 4
An independent study course to provide students with opportunities to gain experience in community service work relevant to psychology. Prereq: So st, one Level II crse in psych, & cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 406 Psychology of Perception Credits: 3 - 4
Survey the current knowledge about how the brain creates our conscious experience of a surrounding world and of our own bodies. We will consider contributions from various approaches, including neurophysiology, psychophysics, computer simulations, perceptual illusions, and patient studies. Prereq: Sophomore standing and one of the following: PSYCH 201, 202, 281, (BIOLOGY/ZOOLOGY 101 and 102), BIOLOGY/BOTANY/ZOOLOGY 151 or (BIOCORE 381 and 382)
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 408 Psychology of Human Emotions Credits: 3
Influence of emotions on goals, customs, interests, learning, reasoning, and behavior problems in children and adults. Prereq: 12 cr of psych
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 410 Intermediate Statistics for Psychology Credits: 3
Principles of psychological measurement and test theory, including reliability, validity, and test construction. Introduction to correlation, multiple regression, factor analysis, and other data analytic principles. Prereq: Previous statistics course
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 411 Current Topics in Psychology Credits: 3
May be repeated. Prereq: Psych 225 & appropriate content course
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 412 Field Experience in Psychology Credits: 3
Provides an opportunity for students to gain practical experience in the application of psychology in an organization serving social, mental health, educational, biological psychology, developmental, or industrial/organizational interests. Readings and discussions in the application of psychology will be required. Prereq: Major in psych must be declared. Individual courses may be required for some placements
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
PSYCH 413 Language, Mind, and Brain Credits: 3
Cognitive processes and brain mechanisms underlying language use. Topics include language acquisition, production, comprehension, bilingualism, human vs. computer speech perception, reading and dyslexia, human language vs. animal communication,aphasia and other language impairments, and the relationship between language and thought. Prereq: Psych 201 or 202 or 281
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

PSYCH 414 Cognitive Psychology Credits: 3
The course attempts to answer questions about how people perceive, learn, remember, plan, solve problems, make decisions, and communicate. Although the main approach is psychological, we will also consider contributions from computer science, linguistics, and neurobiology. Prereq: Sophomore standing and one of the following: PSYCH 201, 202, 281, (BIOLOGY/ZOOLOGY 101 and 102), BIOLOGY/BOTANY/ZOOLOGY 151 or (BIOCORE 381 and 382)
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 430 History of Psychology Credits: 3
Theoretical and systematic psychology as represented by British empiricism, structuralism, functionalism, dynamic psychology, behaviorism, gestalt psychology, and psychoanalysis; implications for current trends in theory and systems. Prereq: Psych 225 or cons inst
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 449 Animal Behavior Credits: 3
Evolutionary and physiological mechanisms of animal behavior including aggressive, reproductive, communicative, and social behaviors, behavioral development. Prereq: Psych 201 or 202 or 281, and either Zool 101 or Zool 151/152 or Biocore 301
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 450 Primates and Us: Insights into Human Biology and Behavior Credits: 3
Evolution from monkey to humans of intelligence, social behavior, emotion, growth, and bodily structure. Prereq: PSYCH 201, 202 or 281
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 454 Behavioral Neuroscience Credits: 3
Biological basis of human and animal behaviors, including perception, action, cognition, social interaction and disease. Weekly themes from "Cracking the Neural Code" to "Love and War". Students learn, develop and use neural mechanisms to explain and (attempt to) predict what they and others think and do in all facets of life.
Prereq: Sophomore standing and one of the following: PSYCH 201, 202, 281, (BIOLOGY/ZOOLOGY 101 and 102), BIOLOGY/BOTANY/ZOOLOGY 151 or (BIOCORE 381 and 382)
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 455 Laboratory in Behavioral Neuroscience Credits: 1
Introduction to research techniques and experimental methods of physiological psychology. Emphasis on the surgical, histological and electrophysiological techniques for studying the neural mechanisms of behavior.
Prereq: Psych 201 or 202 or 281; Zoo 101/102 or Zoo/Bot 151/152 or Biocore 301; con reg in Psych 454
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PSYCH 481 Honors Seminar in Cognitive Psychology Credits: 1 - 2
Students will read and discuss the professional literature in selected areas of cognitive psychology and cognitive science more generally. There will be opportunities to conduct library research, laboratory research, or construct computer simulations of cognitive processes. Prereq: Cons inst, enrollment in honors program, con reg in Psych 414
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
PSYCH 483 Honors-Language, Mind, and Brain  Credits: 1
Cognitive processes and research methods used to study language. Students will read and discuss professional literature in the areas of language acquisition, production, comprehension, bilingualism, the relationship between language and thought and other topics. Emphasis on brain bases of language. Prereq: Cons inst, enrollment in honors progm, con reg in Psych 413
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 484 Honors-Behavioral Neurosciences  Credits: 1
Physiological mechanisms and research methods used to study motor behavior; sensation and perception; complex motivated behaviors such as reproduction, eating, and sleep; learning; language; emotion; and psychopathological and neurological disorders. Prereq: Declared in honors program, sophomore standing, and one of the following: PSYCH 201, 202, 281, or PSYCH 201, 202, 281, 101 and 102, or BIOLOGY/BOTANY/ZOOLOGY 151 or (BIOCORE 381 and 382)
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 486 Honors: Psychology of Perception  Credits: 1
Students will read and discuss the professional literature in selected areas of perceptual sciences. There will be opportunities to conduct library and laboratory research, or construct computer simulations of perceptual processes. Prereq: Cons inst, enrollment in honors program, con reg in Psych 406
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 487 Honors Animal Behavior  Credits: 4
Honors course on the mechanisms and function of behavior of animals and the relationship between behavior of human and nonhuman animals. Prereq: Psych 202 or 281 or Zoool 101-102 or Zoool 151-152
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 488 Honors Psychology of Human Emotions  Credits: 3
An examination of five theoretical approaches to emotion. Study of facial expression, physiology, appraisal, and the lexicon of emotion as well as some cross cultural factors. Prereq: Honors stdt; Psych 201 or 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 501 Depth Topic  Credits: 4
Provides an in-depth treatment of a specific topic in psychology, in a format that includes both lecture and discussion. Prereq: Psych 201, 202, 281 or equiv; and other relevant course(s) depending on topic and instructor preference
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 502 Cognitive Development  Credits: 4
Covers the basics of cognitive development during childhood. Topics include theoretical approaches to cognitive development; perceptual, language, memory, and conceptual development; social cognition; problem solving, and academic performance. Prereq: Psych 201, 202, 281, or equiv; and either Psych 406, 413, 414 or 560
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PSYCH 503 Social Development  Credits: 4
Explores how infants and children perceive, think about, and interact with the social world. Topics include theory of mind, emotions, early social relationships, peer influences, morality and pro-social behavior, aggression, and social categorization. Prereq: Psych 414, 449, 450, 528, 530 or 560
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 504 Affective Neuroscience  Credits: 4
Focuses on the neural basis of emotion, including how the brain analyzes incoming sensory information, categorizes its motivational value, and initiates an ecologically appropriate response. Prereq: Psych 201, 202, 281, or equiv; and either Psych 406, 413, 414, 454, or 530
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 507 Psychology of Personality  Credits: 3
Organization and development of the personality. Prereq: Psych 201 or 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
PSYCH 508 Psychology of Human Emotions: From Biology to Culture Credits: 4
Emotional experience affects and defines every facet of our life, but it seems mysterious and unsuitable for scientific inquiry. This course shows how and why Emotion is not unsuited to scientific research. The Psychology of Human Emotion provides an in-depth examination of research from all sub-disciplines of the field of Psychology. This includes neuroscience and the biological bases of behavior, questions of the developmental curve for emotional phenomena and the relationship between feeling and thinking, all the way to the study of social groups and culture. Readings and discussion attempt to integrate existent theory and research and apply their implications to the individual, the group.
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 509 Abnormal Psychology Credits: 3
A survey of the psychology of abnormal behavior; nature and social/biological origins of neurotic, psychotic, and other behavioral abnormalities. More general coverage of behavior pathology than Psych 511 or 512. Prereq: Psych 201 or 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 511 Behavior Pathology: Neuroses Credits: 3
The nature, origins, assessment and treatment of neurotic, characterological, and psychosomatic behavioral abnormalities and psychopathology in adults and children. Prereq: Psych 201 or 202 or 281. Those who take 511 may not receive credit for 509
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 512 Behavior Pathology-Psychoses Credits: 3
The nature, origins, assessment and treatment of psychotic and organic behavioral abnormalities; emphasis on the experimental analysis of Psychopathology. Prereq: Psych 201 or 202 or 281 & 509 or 511
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 513 Hormones, Brain, and Behavior Credits: 4
Complex social behavior emerges from the interplay of hormones, the brain and environmental signals. This course is structured to introduce psychology and neurobiology students to how hormones and neurotransmitters shape brain and behavior in animals and humans. We will review the mechanisms by which hormones shape brain sex differences and its consequences on juvenile (i.e. play) and adult behavior. We will discuss how hormones influence sexual behavior using basic animal models, and extend this to human sex differences, including sexual orientation. Additional topics include how hormones shape competitive and affiliative behaviors, eating disorders, and stress and mental health. We will al
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 517 Introduction to Clinical Psychology Credits: 3
Methods, rationale, and empirical foundations of clinical psychology. Emphasis is on therapy and behavior modification. Intended for advanced undergraduate majors and non clinical graduate students. Prereq: Psych 225 & appropriate content course; Psych 509, 511 or 512 strongly recommended
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 520 How We Read: The Science of Reading and Its Educational Implications Credits: 4
Reading is one of the most advanced expressions of human intelligence, involving language, vision, memory, learning, thinking and other capacities. This course is an in-depth introduction to scientific studies of reading, which examine how reading relates to spoken language, how people learn to read, the processes involved in skilled reading, the causes of reading impairments (dyslexia), and the brain bases of reading. The course will also examine whether this science can help to address America’s literacy problem. Many people (about 30% of the population) are unable to read or read poorly. How can reading science be brought to bear on this problem, which is of enormous importance to both t
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
PSYCH 521 The Structure of Human Thought: Concepts, Language and Culture Credits: 4
This class will take you on a tour of how humans conceptualize the world, focusing on the role of language in thought. We will begin by discussing the evolution of language and how it relates to other communication systems used by humans and nonhuman animals. We will then discuss the relationship between language, culture, and cognition in domains as varied as mathematics, visual perception, spatial navigation, and theory of mind. In the process, we will tackle questions such as: What is the role of language in making us human? Can speaking a particular language allow the speakers to better adapt to their environment? Can we create new languages to improve human thought? We will also address.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 522 Psychology of Women Credits: 3
Examination of theories and research on the psychology of women. Explores topics such as the biological and cultural bases of the psychology of women; psychological aspects of female sexuality and reproduction; violence against women; female achievement and power; lifestyle choices of women; and women and mental health.
Prereq: So st; Women St 102, 103 or 430; & a course in psych; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 523 Neurobiology Credits: 3
Basic mechanisms in cellular neurophysiology: electrophysiology and chemistry of nerve signals, mechanisms in integration, simple nervous pathways and their behavioral correlates. Prereq: Biocore 323 or Zool 151/152 or Zool 101 plus an additional zool crse & a yr each of chem & physics
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PSYCH 524 Neurobiology II: An Introduction to the Brain and Behavior Credits: 3
An introduction to studies of the human nervous system covering neuroanatomy of the brain, neuronal coding, sensory and motor systems, biological rhythms, arousal, attention, physiological regulation, reward, aversion, learning and memory. Prereq: Zool 523, equiv crse in physiol, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 526 The Criminal Mind: Forensic and Psychobiological Perspectives Credits: 4
Criminal behavior is an extremely common and costly problem for society. The goal of the course is to provide an indepth understanding of criminal psychology and the relevant forensic and psychobiological processes in the field. Prereq: One of the following courses, Psych 507, Psych 509, Psych 511, Psych 512, or Psych/Soc 530
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 528 Introduction to Cultural Psychology Credits: 3
Cultural underpinning of psychological processes. The course will cover cultural influences on a wide range of psychological processes, including self-perception, motivation, relationship, cognition and perception, and will also deal with acculturation, within-cultural differences and cultural stability and change. Prereq: Psych 201 or 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 530 Introductory Social Psychology Credits: 3 - 4
The systematic study of the individual in a social context, including social interaction, motivation, attitudes, conformity, communication, leadership, personal relationships, and behavior in small groups. Prereq: Sophomore standing and one of: Intro Soc course (Soc 140, 181, 210, or 211), Psych 201, Psych 202, Psych 281, or Anthro 100. Graduate students must have consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 532 Psychological Effects of the Internet Credits: 4
Googling the question, "How is the Internet changing the way we think?," renders no shortage of opinions - or fears. In this course, students will examine empirical evidence for whether the Internet is changing the way we learn, communicate, socialize, attend, develop, and age. Students will read and synthesize original research literature, which will be augmented with readings and videos from the popular press. Prereq: PSYCH 201, 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
PSYCH 549 Human Factors Engineering Credits: 3
Analysis and design of man-machine systems using human performance models and data. Emphasis on systems involving communication and control. Projects using digital and analog computer simulation techniques for system design. Prereq: IE 349 or equiv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 550 Animal Communication and the Origins of Language Credits: 3
Signals, contexts, and mechanism of social communication in animals. Speech and non-verbal communication in human beings and possible arguments for the evolution of speech and language. Prereq: Psych 449 or 450 or Zoology 531 or 532
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 556 Hormones and Behavior Credits: 3
A survey of human and subhuman research findings relating behavioral events to endocrine function. Topics include stress, psychosis, intellectual development, memory, gender-identity differentiation, reproductive behavior, aggression, preceded by a review of basic and clinical endocrinology. Prereq: Psych 225 & 454 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 560 Child Psychology Credits: 3 - 4
Learning principles, motor, language, perceptual, and social development. Experimentation and systematic investigation of development in both human and sub-human species stressed. Prereq: Psych 201 or 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 564 Adult Development and Aging Credits: 3
Physical, cognitive, social, and personality development during the adult years. Prereq: Psych 201 or 202 or 281
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 580 Honors Seminar in Child Psychology Credits: 1
Prereq: Psych 201, 202, or 281 & cons inst; con reg in Psych 560
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 581 Honors Depth Topic Credits: 4
Provides an in-depth treatment of a specific topic in psychology, in a format that includes both lecture and discussion. Prereq: Psych 201, 202, 281 or equiv; and other relevant course(s) depending on topic and instructor preference
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 582 Honors Cognitive Development Credits: 4
Covers the basics of cognitive development during childhood. Topics include theoretical approaches to cognitive development; perceptual, language, memory, and conceptual development; social cognition; problem solving, and academic performance. Prereq: Psych 201, 202, 281, or equiv; and either Psych 406, 413, 414 or 560
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PSYCH 583 Honors Social Development Credits: 4
Explores how infants and children perceive, think about, and interact with the social world. Topics include theory of mind, emotions, early social relationships, peer influences, morality and pro-social behavior, aggression, and social categorization. Prereq: Psych 414, 449, 450, 528, 530 or 560
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 584 Honors Affective Neuroscience Credits: 4
Focuses on the neural basis of emotion, including how the brain analyzes incoming sensory information, categorizes its motivational value, and initiates an ecologically appropriate response. Prereq: Psych 201, 202, 281, or equiv; and either Psych 406, 413, 414, 454, or 530
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
PSYCH 585 Honors Seminar in Social Psychology Credits: 1
This course is an honors discussion to be taken in conjunction with Psych 530. Prereq: Psych 201, 202, or 281, and in an honors program, and concurrent enrollment in Psych 530, or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 586 Honors seminar: The Criminal Mind: Forensic and Psychobiological Perspectives Credits: 4
Criminal behavior is an extremely common and costly problem for society. The goal of the course is to provide an indepth understanding of criminal psychology and the relevant forensic and psychobiological processes in the field. Prereq: One of the following courses, Psych 507, Psych 509, Psych 511, Psych 512, or Psych/Soc 530 and must be in an honors program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 587 Honors Seminar in Abnormal Psychology Credits: 1
This course will provide a more in-depth exploration of abnormal psychology. It is intended to supplement the introductory Abnormal Psychology course (Psych 509). Prereq: Psych 201, 202, or 281, and in an honors program, and concurrent enrollment in Psych 509, or consent of instructor
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 588 Introduction to Cultural Psychology - Honors Credits: 1
This honors seminar will serve to supplement the lecture course, Introduction to Cultural Psychology. It will allow students to delve more deeply into the issues discussed in the lecture by reading and evaluating empirical articles central to cultural psychology. Prereq: Psych 201 or 202 or 281 & con reg in Psych 528
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 610 Statistical Analysis of Psychological Experiments Credits: 3
Statistical analysis of data obtained with various experimental designs, Chi-square, analysis of variance and covariance, factorial and repeated-measures, Latin and Greco-Latin square designs, tests of trend. Prereq: One undergrad crse in stats, or equiv
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 611 Systems Neuroscience Credits: 4
Introduction to the anatomy and physiology of the mammalian nervous system. Lectures will cover the neuroanatomy of the major subdivisions of the human brain, the major sensory and motor systems, and higher order functions. Lab/discussion sections will emphasize readings from the primary literature and hands-on dissections. Prereq: Physiol 610
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PSYCH 619 Biology of Mind Credits: 3
Origins and structures of mind, brain, and consciousness. Transitions from early mammalian through primate to hominid intelligence. Genetics and plasticity in brain development. Modern studies of human brain mechanisms and consciousness. Prereq: Jr st; college level elem crse in biology or psych
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PSYCH 620 Capstone Mentored Research and Seminar Credits: 1 - 6
In this course, students will develop an understanding of primary research in a topic area and will participate in designing and conducting research that challenges and/or extends current understanding of the topic. Course reading will include published research studies relevant to the selected topic, and evaluation will include presentations in group meetings and or a paper based on the research conducted. Prereq: Consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 621 Mentored Research and Seminar Credits: 1 - 6
In this course, students will develop an understanding of primary research in a topic area and will participate in designing and conducting research that challenges and/or extends current understanding of the topic. Course reading will include published research studies relevant to the selected topic, and evaluation will include presentations in group meetings and or a paper based on the research conducted. Prereq: Consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
PSYCH 652 Sociotechnical Systems Credits: 3
Sociotechnical systems theory with applications to the design of organizations and jobs. Open systems and organizational environments. Analysis of the technical and social systems and techniques for "whole" system consideration. Organizational design strategy. Field site analyses by student teams. Prereq: Grad st or IE 349
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PSYCH 653 Organization and Job Design Credits: 3
Design of productive organizations and people's roles within them. Issues including boundary location, organizational decision levels, autonomous work groups, implementation and diffusion. Roles of the union. Case studies. Prereq: Grad st or IE 349
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 686 Honors Seminar in Psychology Credits: 1
Prereq: Con reg in Psych 681 or 682 for Srs honors candidates and Sr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 691 Undergraduate Thesis Credits: 1 - 6
Undergraduate research including completion of a thesis. Recommended for those intending to do graduate work in psychology. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 692 Undergraduate Thesis Credits: 1 - 6
Continuation of 691. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCH 693 Animal Behavior Problems Credits: 1 - 12
Repeatable to a maximum of 12 credits. Individual experimental studies. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 694 Problems in Developmental Psychology Credits: 1 - 12
Repeatable to a maximum of 12 credits. Independent problems under supervision. Prereq: Cons inst & Psych 560 &/or 561
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 695 Problems in Clinical Psychology Credits: 1 - 12
Repeatable to a maximum of 12 credits. Individual experimental studies. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 697 Problems in Human Behavior Credits: 1 - 12
Repeatable to a maximum of 12 credits. Independent work under supervision. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PSYCH 699 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st, and cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PSYCH 701 Proseminar in Experimental Psychology Credits: 1
Introductions to various aspects of experimental psychology such as sensory, learning, motivation, and experimental methodology. Prereq: Grad standing or consent of instructor
Typically Offered: Occasionally
PSYCH 703 Proseminar in Social Psychology Credits: 1
Weekly discussion of current topics in social psychology, especially as illustrated by the planned and ongoing research of the graduate students and faculty in social psychology. Recent journal articles will also be discussed. Prereq: Admission to grad prog in soc psych. Others with cons soc psych area group chair. Req of all grads in soc psych
Typically Offered: Occasionally

PSYCH 704 Proseminar in Clinical Psychology Credits: 1
Research and theoretical presentations by all class members as well as discussions and research critiques. Discussion of research articles. Six semesters of this course are required for all clinical graduate students. Prereq: Admission to Grad prgm in clinical psych
Typically Offered: Occasionally

PSYCH 706 Proseminar in Developmental Psychology Credits: 1
Weekly discussion of current topics in developmental psychology, especially as illustrated by the planned and ongoing research of the graduate students and faculty in developmental psychology. Recent journal articles will also be discussed. Prereq: Grad st in psych or related field, or cons inst
L&S Level: Advanced  Typically Offered: Occasionally

PSYCH 707 Proseminar in Biological Psychology (Perception/Biology of Brain & Behavior) Credits: 1
Topical research-oriented presentations and discussions in the area of biological psychology. Each week the seminar will be led by a faculty member or advanced student in the biological psychology area group of the Department of Psychology. Prereq: Declared in Psychology PhD program
Typically Offered: Occasionally

PSYCH 710 Design and Analysis of Psychological Experiments Credits: 3
Structure of psychological experiments; measurement and control of variables in psychology; randomized, orthogonal, and balanced designs; trend analysis; distribution-free methods. Prereq: Grad st and Psych 225
Typically Offered: Occasionally

PSYCH 711 Current Topics in Psychology Credits: 2 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 715 Language and Cognitive Development Credits: 3
The development of language and cognition with an emphasis on the review of research and theory. Prereq: Grad st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  Typically Offered: Occasionally

PSYCH 728 Classic Issues in Social Psychology Credits: 3
A broad survey of theories and research from the field of social psychology. Areas may include: attitudes and attitude change, conformity and compliance, altruism, attribution theory. Prereq: Grad st or Sr st and cons inst
Typically Offered: Occasionally

PSYCH 729 Advanced Social Psychology Credits: 3
Intensive examination of theoretical conceptions in contemporary social psychology, including learning-theoretic, reinforcement, incentive, cognitive, and psychodynamic approaches, and research in selected topic areas reflecting these approaches, such as aggression, attitude formation and change, conformity, limitation and modeling, interpersonal attraction, perception of others, prosocial behavior, and social influence. Prereq: Grad st or Sr st and cons inst
Typically Offered: Occasionally

PSYCH 732 Psychology of Women Credits: 3
This course covers research and theory in psychology of women. Topics include nonsexist research methods, psychological gender differences, theories of moral development, women of color, mental health and feminist therapy, rape, sexual harassment, and public policy issues. Prereq: Grad st & cons inst
Typically Offered: Occasionally

PSYCH 733 Perceptual and Cognitive Sciences Credits: 2
Lectures on current approaches to perceptual and cognitive sciences. Prereq: Grad st
Typically Offered: Occasionally
PSYCH 740 Clinical I: Assessment, Etiology, and Treatment Credits: 1
Lectures on current approaches to assessment, etiology, and treatment of topic material. Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 741 Clinical II: Assessment, Etiology, and Treatment Credits: 1
Lectures on current approaches to assessment, etiology and treatment of topic material. Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 770 Human-Computer Interaction Credits: 3
Principles of human-computer interaction (HCI); human subjects research methods and procedures, qualitative and quantitative data analysis; and semester-long research project situated in critical domains of HCI, including applications in ubiquitous, affective, assistive, social, and embodied computing. Prereq: Graduate or professional standing
Typically Offered: Fall

PSYCH 776 Teaching of Psychology Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 799 Independent Reading Credits: 2 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

PSYCH 800 Cognitive & Neuropsychological Assessment for Diagnosis Credits: 2
Introduction to the major approaches and techniques used in the psychological assessment of cognitive functioning of children, adolescents, and adults, with special emphasis on intellectual evaluation. Other cognitive areas to receive focus include; attention, memory, executive function, language, and academic achievement. Prereq: Consent of instructor
Typically Offered: Spring

PSYCH 802 Assessment of Psychopathology & Personality Credits: 2
This course will introduce the use of structured and semi-structured interviews typically used in psychodiagnostic settings, including research. The assessment of major/common psychopathologies and personality diagnosis will be covered. Additionally, several of the most commonly used clinical self-report and personality measures will be introduced (e.g., PAI, MMPI, BASC). Prereq: Consent of instructor
Typically Offered: Spring

PSYCH 803 Advanced Techniques in Psychotherapy Credits: 3
This course will provide an overview of empirically supported psychotherapeutic movements and their associated history, philosophical underpinnings, and techniques. Students will be oriented toward the theoretical perspective, basic tenets, and the practical techniques/skills of each psychotherapy. Prereq: Consent of instructor
Typically Offered: Occasionally

PSYCH 805 Field Work in Clinical Psychology Credits: 1 - 3
Supervised field work in practical clinical situations. Prereq: Grad st & cons inst
Typically Offered: Occasionally

PSYCH 806 Principles of Psychotherapy Research Credits: 2
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 807 Introduction to Conducting Psychotherapy Credits: 3
This course will introduce and allow practice with the skills needed to conduct individual psychotherapy using a cognitive behavioral approach. The first half of the course focuses on interviewing skills, planning and initiating CBT interventions, and the administrative demands of clinical practice. The second half of the course involves conducting psychotherapy and participating in individual and group supervision of those therapeutic contacts. During supervision we will discuss the client's issues, goals, and progress, as well as the clinician's professional presentation, therapeutic approach and techniques, and communication skills. Prereq: Graduate or professional standing
Typically Offered: Spring
PSYCH 809 Ethical and Legal Issues in Clinical Practice I Credits: 2
The purpose of this course is to provide an introduction to the legal and ethical issues inherent to the conduct and process of professional clinical psychology. To this end, the course will review selected theories of moral philosophy, the American Psychological Association (APA) Ethical Principles and Codes of Conduct for Psychologists, other APA Standards and Guidelines and Wisconsin legal statutes governing the practice of psychology. This course is integrated with group case discussions and students. Students are encouraged to use this as a forum to discuss ethical and legal issues pertinent to their ongoing clinical cases. Ethical & Legal Issues in Clinical Practice I will focus on int
Typically Offered: Fall

PSYCH 811 Cognitive Behavior Therapy Credits: 1
This course examines the theory and practice of Cognitive-Behavior Therapy (CBT). Students will examine the core issues of CBT from both theoretical and applied perspectives through case conceptualization exercises, role-plays, and application of CBT exercises to themselves. Prereq: Consent of instructor
Typically Offered: Occasionally

PSYCH 813 Ethical and Legal Issues in Clinical Practice II Credits: 2
The purpose of this course is to extend and deepen our discussion of a clinical psychologist's ethical and legal obligations. To this end, the course will review selected theories of moral philosophy, the American Psychological Association (APA) Ethical Principles and Codes of Conduct for Psychologists, other APA Standards and Guidelines and Wisconsin legal statutes governing the practice of psychology. This course is integrated with PRTC group case discussions. Students are encouraged to use this as a forum to discuss ethical and legal issues pertinent to their ongoing clinical cases. This course will focus on a more in depth examination of the ethical and legal responsibilities of psychoth
Typically Offered: Spring

PSYCH 841 Computational Cognitive Science Credits: 3
Studies the biological and computational basis of intelligence, by combining methods from cognitive science, artificial intelligence, machine learning, computational biology, and cognitive neuroscience. Prereq: Comp Sci 302 (or equivalent)
Typically Offered: Spring

PSYCH 854 Special Topics in Organization Design Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 859 Special Topics in Human Factors Engineering Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 906 Methods and Hypothesis-Testing for Behavioral Ecologists Credits: 1 - 3
A detailed overview of field methods for behavioral ecologists, focusing specifically on behavioral and ecological sampling techniques. It addresses the challenging process of situating an empirical study within the context of theoretical paradigms. Prereq: Grad st or cons inst
Typically Offered: Occasionally

PSYCH 910 Seminar-Psychometric Methods Credits: 2 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 913 Seminar - History of Psychology Credits: 2 - 3
Overview of the history of psychology and its relevance to current issues in the discipline. Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 916 Seminar in Mathematical Psychology Credits: 2 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 918 Seminar-General Psychology Credits: 1 - 3
Prereq: Grad st & prev cons inst
Typically Offered: Occasionally
PSYCH 930 Seminar-Social Psychology Credits: 2 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 950 Interdisciplinary Seminar in Animal Behavior Credits: 1
Research methods in animal behavior studies in many disciplines. Prereq: Grad st
Typically Offered: Occasionally

PSYCH 954 Seminar-Physiological Psychology Credits: 2 - 3
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 990 Research Credits: 1 - 12
Independent experimental, observational, or statistical investigation under the supervision of a staff member.
Prereq: Cons inst
Typically Offered: Occasionally

PSYCH 995 Predoctoral Internship Credits: 0
Registration for Ph.D. students who have successfully defended the dissertation and are in the process of completing the required predoctoral internship. Prereq: Successful dissertation defense
Typically Offered: Fall, Spring, Summer

RELIGIOUS STUDIES

RELIG ST 101 Religion in Global Perspective Credits: 3
Foundational and thematic approaches in the academic study of religion applied across global religious systems.
Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 112 The World of Late Antiquity (200-900 C.E.) Credits: 4
History of the Mediterranean World from the late Roman Empire to the development of distinct European, Byzantine and Islamic civilizations (ca. 200-900 CE). Special attention will be paid to the rise and development of Christianity and Islam. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

RELIG ST 131 Introduction to Christianity: Jesus to the Present Credits: 4
Survey of Christianity from its beginnings to its diverse global manifestations today, including beliefs, institutions, ritual, lived experience, and interactions with broader culture and society. Prereq: None
L&S Breadth: Humanities or Soc Sci L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 173 Consuming Happiness Credits: 3
As the saying goes, money can't buy happiness -- but in modern America, we certainly try. This course will provide an overview of the study of happiness and well-being, examine how consumers engage in consumption in pursuit of happiness, as well as explore the emergence of the experience economy, and the intersection of money and well-being. Students will read academic and popular pieces on positive psychology, prosocial spending and explore the psychology of persuasion in the promises associated with this industry. In addition to integrating visual media, students will have the opportunity to experience first-hand whether the advice works in their own lives.
Prereq: None
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

RELIG ST 200 Introductory Topics in Religious Studies (Humanities) Credits: 3 - 4
Topics in religious studies in the humanities at an introductory level. Prereq: Open to Freshman
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 205 The Making of the Islamic World: The Middle East, 500-1500 Credits: 3 - 4
Development of society and culture in the Middle East and North Africa from the emergence of Islam (7th century) to early modern times. Prereq: Open to All Undergrads
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall
RELIG ST 206 Introduction to the Qur'an Credits: 4
An introduction to the Qur'an, the sacred scripture of the Islamic religious tradition, focused on Muslim approaches to reading the text, its themes and history, and its use as a source of law, theology, aesthetics, politics, and practices of piety. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 208 Western Intellectual and Religious History to 1500 Credits: 3 - 4
Survey of key themes in Western intellectual history and religious thought from ancient Greece through the Renaissance, focusing on relationships among classical, Jewish, and Christian traditions. Prereq: Sophomore standing or one HISTORY course or one REL ST course
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 209 Western Intellectual and Religious History since 1500 Credits: 3 - 4
A survey of major trends in Western intellectual history and religious thought in the modern era, a period that saw a new range of competing ideas about the divine, the human condition, justice and the social order, and the quest for meaning. The course explores shifts in Christian and Jewish thought as well as secular alternatives to religious outlooks. Topics include the impact of the Reformation, Scientific Revolution, and Enlightenment; radical critiques of religion; existentialism; theological responses to World Wars and the Holocaust; and civil rights and social justice. Sources include films, novels, autobiographies, essays, theological works, and political manifestos. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

RELIG ST 211 Introduction to Judaism Credits: 4
General introduction to Judaism covering the biblical, classical rabbinic, medieval, and modern periods. Prereq: Open to Freshmen
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 212 The History of Western Christianity to 1750 Credits: 4
A survey of Christianity from being a small, persecuted sect in the Roman Empire to becoming the dominant religion of western Europe, penetrating into the lives of Europeans, fissuring into multiple churches, and spreading across the globe. Attention is given to doctrine, ritual, worship, architecture, images, and music. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 227 Introduction to Biblical Literature (in English) Credits: 4
Introduction to the literature and literary history of the Old Testament, Apocrypha, Dead Sea Scrolls, Talmud, and Midrashim. Prereq: Not open to students that have completed HEBR ST 217
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

RELIG ST 230 Judaism, Christianity, and Islam: Braided Histories Credits: 3
An examination of the braided histories of Judaism, Christianity and Islam from 2000 BCE to 2000 CE, emphasizing their theological, cultural, and political relationships. Prereq: None
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

RELIG ST 234 Genres of Western Religious Writing Credits: 3
Writing intensive course based on the conventions in which Western writers have expressed religious ideas. Readings from Jewish, Christian, and other spiritualities. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr
General Education: COM B L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 235 Genres of Asian Religious Writing Credits: 3
Writing intensive course based on the conventions in which Asian writers have expressed religious ideas. Readings introduce major Asian religious traditions and expressive genres. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr
General Education: COM B L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
RELIG ST  237 Biblical Poetry in Translation  Credits: 3
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

RELIG ST  253 Literature in Translation: Dante's Divine Comedy  Credits: 3
Prereq: So st or cons inst
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

RELIG ST  257 Literatures of Muslim Societies in Translation  Credits: 3
Prereq: Open to Fr. LCA majors and all Grads register for LCA 357
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST  261 Introduction to the Philosophy of Religion  Credits: 3 - 4
Doctrines and arguments of Western and Eastern religious and philosophical traditions: deity, human nature, immortality, resurrection, religious experience, faith, reason, good, evil, etc. Prereq: So st or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RELIG ST  267 Asian Religions in Global Perspective  Credits: 3
Comparative and thematic introduction to diverse Asian religious traditions, ideas and communities, and their relevance to human societies of the past and present. Prereq: None
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RELIG ST  270 Environment and Religion  Credits: 3 - 4
What are sources on which members of religious communities draw in order to understand and address environmental change? This course explores how religious persons and communities confront global environmental questions and challenges today, with case studies drawn from culturally and religiously plural societies such as India and Indonesia. Introducing diverse varieties of Christianity, Islam, and Hindu and Buddhist systems, course gives overview of some approaches in the environmental humanities related to philosophy, history, sociology and anthropology, and ethics. Fulfills requirement for Environmental Studies and Religious Studies degree programs. Prereq: Sophomore standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

RELIG ST  271 Religion in History and Culture: The West  Credits: 3
An interdepartmental, multidisciplinary survey of the major religious traditions of prehistory; the ancient near east; the ancient Mediterranean; biblical, post-biblical and contemporary Judaism; Christianity; Islam; and selected topics for comparative-historical study. Prereq: Open to Freshmen
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RELIG ST  274 Religion in South Asia  Credits: 3
Introductory survey of Hinduism, Buddhism, Islam, Sikhism, etc., and an examination of the cultural, historical, ritual, and philosophical foundations of South Asian religion. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

RELIG ST  278 Food in Rabbinic Judaism  Credits: 3 - 4
Rabbinic literature frames the fundamental attitudes for how Judaism relates to food. Students will examine the history of food in rabbinic Judaism. In addition, theories from the field of food studies will be applied to rabbinic texts. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

RELIG ST  308 Introduction to Buddhism  Credits: 3 - 4
The basic thought, practices and history of Buddhism, including selflessness and relativity, practices of meditation, merit-making and compassion from both local and translocal perspectives. Includes a discussion of Buddhism as a contemporary, North American religion. Prereq: Open to Freshmen
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
RELIG ST 309 The Crusades: Christianity and Islam Credits: 3 - 4
An examination of the Crusades from both Christian and Islamic perspectives; the historical, social, and religious context and significance of the Crusades for both Christians and Muslims. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RELIG ST 312 The Medieval Church Credits: 3 - 4
The course covers the formation and development of ecclesiastical institutions and religious life in Western Europe from the fourth century to the Protestant Reformation. Prereq: Open to Fr with cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 318 Medieval Social and Intellectual History, 1200-1450 Credits: 3 - 4
Emphasis on social change and intellectual developments. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RELIG ST 325 Eastern Christianity/Russian Orthodoxy in a Global Context Credits: 3
The course will focus on the history and doctrine of Eastern Christianity from its origins in the early Church through today, with special emphasis placed on the cultural manifestations of Orthodox doctrine, including liturgy, iconography, ritual practice. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 328 Classical Rabbinic Literature in Translation Credits: 3 - 4
Introduction to the literature of the Classical Rabbinic or Talmudic period of Judaism (2nd to 7th centuries CE). Historical and intellectual background; the interrelation of liturgy, legal and non-legal literature. Prereq: Open to Freshmen
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

RELIG ST 331 Science, Medicine and Religion Credits: 3 - 4
Science, medicine and religion from antiquity to the present, with emphasis on Western civilization. Prereq: Jr st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 332 Prophets of the Bible Credits: 4
An introduction to the thought, literature, and history of the prophets of ancient Israel (in English). Prereq: CLASSICS/JEWISH/LITTRANS/RELIG ST 227 or Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

RELIG ST 333 Early Christian Literature: Matthew-Revelation Credits: 3
An exploration of Christianity's charter documents in the light of what modern scholarship has discovered about the New Testament's sociohistorical context, composition, theologies, and presentations of Jesus. Open to Fr
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

RELIG ST 334 The Reformation Credits: 3 - 4
The division of Western Christendom, 1500-1650, and its impact on Europe and the world. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RELIG ST 335 King David in History and Tradition Credits: 3
An exploration of the literary and historical aspects of the text of 1-2 Samuel + 1 Kings 1-2; the history and archaeology of Jerusalem during the tenth century B.C.E.; and the varieties of ways in which the figure of King David has been received in subsequent religious and secular literature, visual art, music, television, and cinema. Prereq: Sophomore standing
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

RELIG ST 342 In Translation: Mythology of Scandinavia Credits: 3 - 4
Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
RELIG ST 343 Anthropology of Religion Credits: 3 - 4
Anthropological approaches. Illustrated by critical considerations of outstanding contributions. Selected religious systems; areal and topical comparative studies; religion as an ethnographic problem. Prereq: Anthro 104 or cons inst
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 346 Jewish Literature of the Greco-Roman Period Credits: 3
Jewish literature from 350 BCE to 150 CE. The Greek and Hebrew sources include stories, religious poetry, wisdom books and apocalyptic texts. Readings (in translation) from the Apocrypha, Pseudepigrapha, and the Dead Sea Scrolls in their historical, cultural and literary setting. Prereq: Sophomore standing
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 350 Introduction to Taoism Credits: 3 - 4
A study of the writings attributed to Lao-tzu and Chuang-tzu and their concepts, and the history and various aspects of religious Taoism. Consideration is given to Taoist influences on literature. Undergraduate majors register for 4 cr; non-majors and graduate majors register for 3 cr. Prereq: So st; Undergrad majors register for 4 cr, Undergrad non-majors and Grad stdts register for 3 cr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 352 Shamanism Credits: 3
Survey of shamanism as a religious tradition and sociocultural force in Siberian, Asian, and Native American societies. Exploration of shamanic rituals, roles, cosmology. Cultural and political uses of shamanism in traditional and modern contexts.
Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 355 Hinduism Credits: 4
An historical survey of Hindu scriptures, rituals, philosophies, and ethics from the ancient to the contemporary world. Concepts such as karma, yoga, and reincarnation will be put in the broader contexts of Hindu theism, worship, and law. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

RELIG ST 356 Islam, Science & Technology, and the Environment Credits: 3 - 4
Survey of Muslim religious understandings of science, technology, nature and environment. Lectures and readings present a global perspective through case studies, covering sources such as the Qur'an, theology and law, and traditions of esoteric piety (mysticism), and historical and contemporary issues like medical ethics, virtual realities, and environmental change, challenge and crisis. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Every Other Fall

RELIG ST 357 Literatures of Muslim Societies Credits: 3
Survey in English of the literatures of the Islamic Middle East and South West Asia in Turkish, Persian and Arabic. Emphasis on comparative approaches within an Islamic cultural continuum and reactions to this heritage in the modern and post-modern periods. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

RELIG ST 359 Myth Credits: 3
The relationship between myth and tale, history, culture. Myth research; methodological approaches; world mythologies; myth and modern times. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 360 The Anglo-Saxons Credits: 3
Life and literature during the Old English period (c450-c1100). Primary emphasis on the vernacular and Latin writings of the Anglo-Saxons themselves. Extensive historical and archaeological background; attention to the development and character of monasticism, to the production of manuscripts, etc. All reading in translation. Students who have taken English 360 prior to fall 2014 may not enroll in the course. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 361 Early Christian Literature: Pauline Christianity Credits: 3
By conventional reckoning, Paul was a major contributor to the development of Christianity. This course analyzes both Paul's and other contemporary writings to assess the extent to which he contributed to the development of the early church. Prereq: Open to Fr
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
RELIG ST 363 Introduction to Confucianism Credits: 3
The development of Confucianism in pre-Buddhist China emphasizing interactions with competing viewpoints. Particular attention to issues of morality and human nature, stressing the roots of Confucianism in more general theories of value. All readings in translation. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 367 Jainism: Religion of Non-Violence Credits: 3
An examination of the theological, ritual, and social frameworks of the Jain tradition; explores the moral and physical implications of asceticism and non-violence from a Jain perspective through a study of sacred texts and contemporary practice. Prereq: Open to Freshmen
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

RELIG ST 368 The Bible in the Middle Ages Credits: 3
Medieval Bible and its shaping effect on medieval culture. Prereq: Sophomore standing or consent of instructor
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 370 Islam: Religion and Culture Credits: 3 - 4
The emergence and development of Islam; schism; theology; asceticism; speculative and popular mysticism; literatures in diverse Islamic languages. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

RELIG ST 372 Jews of Central and Eastern Europe Credits: 3 - 4
Course will focus on main characteristics of Central and Eastern European Jews (Ashkenazim) in their cultural-historical development. Prereq: So st or cons inst. Open to Fr with cons inst
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 373 Great Cities of Islam Credits: 3
This course offers a comparative study of the foundation and development of five great cities in the history of Islam: Cairo, Istanbul, Delhi, Mecca, and Isfahan. Architectural projects, ornamental idioms, and changes to the urban plan are studied from aesthetic and cultural perspectives. Integrating historical and religious studies, this course highlights the shifting nature of Islamic culture, from the tenth century CE to the present. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 374 The Rhetoric of Religion Credits: 3
Rhetorical character of religious controversy and sectarian persuasion in Western religion. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

RELIG ST 377 Jewish Cultural History (in English) Credits: 4
Survey of Jewish cultural history from the Biblical to Talmudic and early Muslim periods; and its interaction with other cultures, including Hellenistic, Roman, and Muslim. Prereq: Sophomore standing
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 379 Islam in Iran Credits: 3
History of Islam in Iran from Arab conquest in the seventh century to the Islamic Revolution in 1978-89. Prereq: So st
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 400 Topics in Religious Studies - Humanities Credits: 3 - 4
Topics may include religion in specific societies or regions; religion in the arts; contemporary themes in religion. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 401 Topics in Religious Studies - Social Studies Credits: 3 - 4
Topics in religious studies in the social sciences.
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
RELIG ST 402 Thought of Gandhi Credits: 3
Critical analysis of Gandhi's social, political, and religious thought, tracing his experiences in South Africa and India, noting links between his concepts and classical Hinduism, examining criticisms raised against Gandhi's thought, and identifying contemporary continuities of Gandhi's thought in India, Europe, and the U.S. Prereq: So st or cons inst
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 403 Topics in Religious Studies-US Ethnic Studies Credits: 3 - 5
Topics in Religious Studies-US Ethnic Studies. Topics in historical or contemporary religious culture and society pertaining to persistently marginalized racial or ethnic groups in the United States. Prereq: Sophomore standing
Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 421 A Survey of Tibetan Buddhism Credits: 3
By studying the distinctively Tibetan forms of Buddhism, we also examine more general issues, such as the relationship between theory and practice, the politics of "world-making", and the connection between identity and experience. Prereq: So st or cons inst; prev study of Buddhism strongly recommended
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 433 Religion and Politics Credits: 3 - 4
Explores the relationships and interactions between religion and politics from a comparative perspective. The course will discuss the appropriate relationship between religion and state. In the first part of the course students will investigate the implications of the various ways in which the religion-state relationship have been involved in political conflict. Building on this, the course will then turn to several of the current issues in religion and politics asking: Why is religion apparently more important than ever despite an increasingly secular world? What is religious nationalism? What is fundamentalism? How can we explain the similarities and differences between religious fundament
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 434 Milton Credits: 3
Major poems and selected prose. Prereq: 6 credits of introductory literature
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 435 Jewish Philosophy from Antiquity to the Seventeenth Century Credits: 3
A survey of major philosophers and philosophical currents within Judaism from antiquity through the seventeenth century. Prereq: 3 credits in philosophy
L&S Breadth: Humanities L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 437 Western Christianity from Augustine to Darwin Credits: 4
A survey of Christianity from the fourth century through the nineteenth. Explores the culture of Christianity--architecture, literature, images, and mosis--in orner to understand how Christianity has become a world religion. Prereq: Open to Fr with cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 438 Buddhism and Society in Southeast Asian History Credits: 3 - 4
Therevada Buddhism in Southeast Asia; ideas and basic tenets; history and its impact on social and political institutions; the monastic order and relations with the states; roles in the early history up to the present; focus on Thailand and Burma. Prereq: So st
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 439 Islamic History From the Origin of Islam to the Ottoman Empire Credits: 3 - 4
Political action and organization in medieval Islam (ca 600-1500), with focus on selected states. Prereq: So st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 440 Francis of Assisi: Literature and the Arts Credits: 3
"Francis of Assisi: Literature and the Arts." Focus on accounts of St. Francis's life as written by medieval authors (e.g., Bonaventure of Bagnoregio, Thomas of Celano, the Franciscan Brother Leo) as well as works written by Francis himself. Examination of the relevance of Francis's teachings to contemporary reflections regarding relationships with the Other, the environment and animals. Discussion of issues related to religion, politics, bio-politics and environmental studies. Prereq: Sophomore standing or above
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
RELIG ST 444 Introduction to Sufism (Islamic Mysticism) Credits: 3
The rise and development of mysticism in Islam; basic Sufi doctrines, values and practices; life and works of important speculative and popular Sufi saints; Sufi brotherhoods in the Middle East, South Asia and North Africa. Prereq: So st & LCA/Hist/Relig St 205, Littrans 217, Relig St 271, LCA/African/Relig St 370, or cons inst L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

RELIG ST 448 Classical Rabbinic Texts Credits: 3
Introduction to the language and literature of the rabbinic period in Judaism (2nd-7th century CE). Acquisition of language skills to read Hebrew texts of this period, including Mishna, Tosephta, and Midrash. Prereq: Hebrew 202 or 324 or consent of instructor L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 466 Buddhist Thought Credits: 3
Survey of the fundamental trends in Buddhist thought through the works of major philosophers. Themes include the concept of "selflessness" and concomitant theories of essencelessness, perception, language and rationality. Previous study of Buddhism or philosophy is strongly recommended. Prereq: So st or cons inst. Prev study of Buddhism or philos strongly recommended. L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit

RELIG ST 470 Religious Thought in Modern Europe Credits: 3 - 4
History of religious thought in modern Europe (19th and 20th centuries) as reflected in theology, philosophy, literature, and political and social theory. Major emphasis on Protestant and Roman Catholic traditions but with additional discussion of Judaism and Orthodoxy. Prereq: Sophomore standing L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

RELIG ST 472 Christian Literature: The Gospels Credits: 3
The first century Gospels show how early Christians used traditions about Jesus' deeds and words to define themselves and others. This course investigates how those Gospels were composed and how their authors portrayed Jesus so as to address their concerns. L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

RELIG ST 478 Art and Religious Practice in Medieval Japan Credits: 3
A study of spaces, objects, and images within the context of religious belief and practice in Japan between 1300 and 1600, when great Zen monasteries grew up alongside older Buddhist/Shinto religious "megaplexes," and new salvationist sects spread throughout Japan. Prereq: Undergrads: a prev crse in art hist or relig studies & satisfaction of Com B requirement. Knowledge of Asian religion recommended L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit

RELIG ST 500 Advanced Topics in Religious Studies Credits: 2 - 4
Topics may include religion in specific contexts, religion and other disciplines or specific themes in Religious Studies. Prereq: Sophomore standing L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

RELIG ST 501 Philosophy of Religion Credits: 3 - 4
Analysis of religious experience and activity, and examination of principal religious ideas in light of modern psychology, philosophy, science, and anthropology. Prereq: Jr st or cons inst L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

RELIG ST 502 Special Topics in Philosophy of Religion Credits: 3
One or more topics selected from among the following: religious discourse, God, evil, survival, great philosophers of religion, etc. Variable content. Prereq: Jr st or cons inst L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit

RELIG ST 516 Religion and Public Education Credits: 3
Examines theories and practices related to the role of religion in public schooling and its accompanying tensions: political and philosophical, practical and personal. Prereq: Jr st or cons inst L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
RELIG ST 517 Religions of the Ancient Mediterranean  Credits: 3
Ancient religions in their political, social and cultural contexts; topics include ritual, literary and artistic representations, religious persecutions, and/or modern approaches to the study of ancient religions. Chronological and geographical focus will vary between Greece, Rome, Judaea and Egypt. Prereq: Sophomore Standing
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 529 Intellectual and Religious History of European Jewry, 1648-1939  Credits: 4
Main movements and trends of thought, religion, and culture as European Jewry gained emancipation and adjusted to mass society. Prereq: Hist 119 or 120 or 512 or 513; or Hist/Jewish 220; or Hebr St/Jewish 471 or 472
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

RELIG ST 547 Religion, Colonialism & Modernity in Southeast Asia  Credits: 3
Examines changes in Southeast Asian religions (Buddhism, Confucianism, Islam) and experiences of modernity during the colonial period. Focus on religious and literary expressions from Thailand, Cambodia, Vietnam and Indonesia. Prereq:
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

RELIG ST 600 Religion in Critical Perspective  Credits: 3
Readings in the analysis of religion as a human phenomenon from various perspectives, such as: skeptical and sympathetic views toward religion; theories of religion's origins and functions; and examinations of religious awe. Should be taken junior year. Seminar format. Prereq: Jr st & cons inst. Preference given to religious studies majors
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

RELIG ST 601 Senior Capstone Research and Colloquium  Credits: 4
Integrated capstone course combining discussion of research methods, conduct of senior thesis research, and presentation and discussion of research results. Only for students in religious studies. This course takes the place of 695 + 697. Prereq: Students must be registered majors in religious studies
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

RELIG ST 614 Social Structures of Muslim Societies  Credits: 3
Analysis of legal, religious, familial, educational, and political institutions in Muslim societies, with special attention to the interaction between these institutions and contemporary social and economic processes. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 618 Political Islam  Credits: 3 - 4
Examines the political origins of contemporary Islamist movements and their impact upon Middle Eastern politics. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

RELIG ST 620 Proseminar: Studies in Religions of Asia  Credits: 3
Historical and structural analysis and discussion of specific topics in one or more religions of Asia. Prereq: So st or LCA/Relig St 273 or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 623 Yoga: Methods and Goals  Credits: 3
Explores Yoga techniques propagated in the ancient Indian texts, as well as their adaptations in the Western world. Prereq: So st & one crse in S Asian religions or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 624 Meditation in Indian Buddhism and Hinduism  Credits: 3
Examines contemplative practices in the two major Indian religions, Buddhism and Hinduism. Covers practices described in ancient texts but also provides an overview of selected modern practices. Prereq: So st & one crse in S Asian religions or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RELIG ST 626 Gods and Goddesses of South Asia  Credits: 3
Explores the deities of South Asia by examining the development of iconographic concepts and devotional practices associated with the worship of deities. Prereq: So st & one crse in S Asian religions or cons inst
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
RELIG ST  628 Hindu Law  Credits: 3
An examination of the nature, history, institutions, and thought of the Hindu legal tradition from its origins ca.
200BCE to the present.  Prereq:  Jr st or cons inst
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

RELIG ST  634 Social Structure of India  Credits: 3
Analysis of the major institutions of India with special attention to the relationship between Hindu community
organization, caste and the family; the effects of political developments, population growth, industrialization, and
urbanization.  Prereq:  Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth:  Social Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

RELIG ST  650 Proseminar in Buddhist Thought  Credits: 2 - 3
Advanced topics in Buddhist thought.  Prereq:  Jr st or cons inst.  1 crse in Buddhism strongly recommended
L&S Breadth:  Humanities  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

RELIG ST  666 The Anthropology of Shamanism and Occult Experience  Credits: 3
Shamanism is a global form of religious practice involving direct contact with the spirit world through ecstatic and
magical techniques.  This course examines shamanic practice and considers allied forms of occult experience
outside of the major world religions.  Prereq:  So st
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

RELIG ST  681 Senior Honors Thesis  Credits: 3
Independent research undertaken by students in the honors program.  Prereq:  Honors candidate & cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

RELIG ST  682 Senior Honors Thesis  Credits: 3
Independent research undertaken by students in the honors program.  Prereq:  Honors candidate & cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

RELIG ST  691 Senior Thesis  Credits: 3
Prereq:  Cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

RELIG ST  692 Senior Thesis  Credits: 3
Prereq:  Cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

RELIG ST  695 Research Colloquium for Majors  Credits: 1
Colloquium for students conducting research under Religious Studies 697, wich must be taken concurrently.
Discussion of problems that arise in conducting research, interpreting evidence, and composing an argument.
Students will present research-in-progress for group discussion.  Prereq:  Relig St 600, major in religious studies,
& cons inst.  Con reg in Relig St 697
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

RELIG ST  697 Independent Research for Majors  Credits: 3
Original research project supervised by individual faculty; only for students majoring in religious studies.  Topics
depend upon students' interest and faculty members' expertise.  Students must register concurrently in Religious
Studies 695.  Prereq:  Relig St 600, major in religious studies, & cons inst.  Con reg in Relig St 695
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

RELIG ST  699 Directed Study  Credits: 1 - 4
Prereq:  Cons inst
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

RELIG ST  706 Seminar: Topics in the History of Buddhism  Credits: 3
Prereq:  Grad st
Typically Offered:  Occasionally

RELIG ST  717 Seminar on Religion and Society in South Asia  Credits: 3
Prereq:  Grad st
Typically Offered:  Occasionally
RELIG ST 799 Independent Research Credits: 1 - 6
Independent research for graduate students. Prereq: Cons inst & Grad st
Typically Offered: Occasionally

RELIG ST 858 Seminar in Problems of Islamic History Credits: 2 - 3
Social and economic history of North Africa and the Middle East in Islamic and modern times. Prereq: Grad st & knowledge of appropriate foreign language
Typically Offered: Occasionally

RELIG ST 961 Seminar-Philosophy of Religion Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

RELIG ST 963 American Religious History to 1860 Credits: 3
The creation of a national religious culture from the earliest settlements to the mid-nineteenth century. Prereq: Grad st & cons inst
Typically Offered: Occasionally

RELIG ST 999 Independent Work Credits: 1 - 6
Individual tutorial on topics in religious studies. Prereq: Grad st & cons inst
Typically Offered: Occasionally

SCANDINAVIAN STUDIES

SCAND ST 101 First Semester Norwegian Credits: 4
Spoken and written Norwegian for students without previous knowledge; lab. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SCAND ST 102 Second Semester Norwegian Credits: 4
Continuation of 101  Prereq: Scand St 101
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SCAND ST 111 First Semester Swedish Credits: 4
Spoken and written Swedish for students without previous knowledge; lab. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SCAND ST 112 Second Semester Swedish Credits: 4
Continuation of 111  Prereq: Scand St 111
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SCAND ST 121 First Semester Danish Credits: 4
Spoken and written Danish for students without previous knowledge; lab. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SCAND ST 122 Second Semester Danish Credits: 4
Continuation of 121  Prereq: Scand St 121
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SCAND ST 131 First Semester Finnish Credits: 4
Spoken and written Finnish for students without previous knowledge. Prereq: None
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SCAND ST 132 Second Semester Finnish Credits: 4
Spoken and written Finnish for students without previous knowledge. Continuation of Scand St. 131  Prereq: Scand St 131
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SCAND ST 201 Second Year Norwegian Credits: 4
Rapid reading of suitable texts by modern writers. Prereq: Scand St 102 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
SCAND ST 202 Second Year Norwegian Credits: 4
Continuation of 201 Prereq: Cons inst or Scand St 201
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 211 Second Year Swedish Credits: 4
Reading of selections from Swedish writers, grammar review and conversation. Prereq: Scand St 112 or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 212 Second Year Swedish Credits: 4
Continuation of 211 Prereq: Cons inst or Scand St 211
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 221 Second Year Danish Credits: 4
Prereq: Scand St 122 or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 222 Second Year Danish Credits: 4
Prereq: Cons inst or Scand St 221
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 251 Readings in Norwegian Literature Credits: 3 - 4
Prose, poetry, and drama read in the original. Norwegian used extensively as classroom language. Prereq: Scand St 202 or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 261 Readings in Swedish Literature Credits: 3 - 4
Prose, poetry, and drama read in the original. Swedish used extensively as classroom language. Prereq: Scand St 212 or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 271 Readings in Danish Literature Credits: 3 - 4
Prose, poetry, and drama read in the original. Danish used extensively as classroom language. Prereq: Scand St 222 or cons inst
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 276 Scandinavian Life and Civilization Credits: 3
Scandinavian culture in its widest aspects, including present-day trends and problems, given cooperatively by staff members. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 284 The "Scandinavian Modern" Phenomenon in Arts and Literature Credits: 3
Exploration of the phenomenon of "Scandinavian Modern" within the context of its cultural origins and its multifaceted manifestations in early- to mid-20th century Scandinavian literature, music, visual arts, film, material culture, architecture, and public life. Prereq: Enrollment in Honors. Open to Fr
L&S Breadth: Literature L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 296 The Scandinavian Heritage in America Credits: 3
Nineteenth century Scandinavian immigration, with field trips. Prereq: Open to Fr
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 299 Directed Study Credits: 1 - 3
Prereq: Jr st. Graded on a lettered basis; requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 301 Intensive Finnish I Credits: 7
Classroom drills and laboratory practice for 8 hours per week. Emphasis on spoken Finnish. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally
SCAND ST 302 Intensive Finnish II Credits: 7
Classroom work and laboratory practice for 8 hours per week. Emphasis on written Finnish. Prereq: Scand St 301
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SCAND ST 373 Masterpieces of Scandinavian Literature: From the Middle Ages to 1900 Credits: 3 - 4
From the Middle Ages to the 1970's. Prereq: 2 yrs of a Scand language or consent of instructor. 4th credit for Com-B stdts only.
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 374 Masterpieces of Scandinavian Literature: the Twentieth Century Credits: 3 - 4
Continuation of 373 Prereq: 2 yrs of a Scand language or consent of instructor. 4th credit for Com-B stdts only
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 375 The Writings of Hans Christian Andersen Credits: 3 - 4
Andersen's art and vision through analysis of his major tales and selections from his other works. Prereq: 2 yrs of a Scand lang or cons inst. 4th cr for Com-B stdts only
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 401 Contemporary Scandinavian Languages Credits: 3
Intensive work in spoken and written Danish, Norwegian, and Swedish, based on contemporary readings, for undergraduate and graduate students with a basic command of a Scandinavian language. Required of graduate students. Prereq: 3 yrs of Norwegian, Danish or Swedish or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 404 Languages of Northern Europe Credits: 2 - 4
Introduction to languages of Northern Europe not covered by other department courses (e.g., Sami, Estonian). Practice in language, accompanied by introduction to grammar, culture, and literature. Other language-related topics offered occasionally; check timetable for details. Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 405 Nynorsk sprak og kultur Credits: 3
Examines the historical and cultural relevance of Nynorsk for modern Norway through analysis of a variety of texts in the original language. Prereq: Scand St 251 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 407 Old Norse Credits: 3
Reading of texts from the Sagas and Eddas, with comparative study of linguistic structure and literary style. Prereq: Grad st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

SCAND ST 408 Old Norse Credits: 3
Continuation of 407 Prereq: Scand St 407 or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 409 Survey of Old Norse-Icelandic Literature Credits: 3
Eddic and skaldic poetry; homilies and saints' lives, kings' sagas, sagas of the Icelanders; mythical-heroic sagas and romances; rimur. Prereq: Grad st or cons inst or Scand St/Medieval 407
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 410 Introduction to Scandinavian Linguistics Credits: 3
Scandinavia as a linguistic area. The main historical developments and structural features of the Scandinavian languages. Prereq: Grad st or cons inst
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 411 Areas in Scandinavian Literature Credits: 1
Concentrated study of topics within Scandinavian literature. Prereq: 5 semesters or equiv in a Scand language
L&S Breadth: Literature L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
<table>
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<th>Course Code</th>
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<tbody>
<tr>
<td>SCAND ST 414</td>
<td>History of the Scandinavian Languages I: Proto- to Common Scandinavian</td>
<td>3</td>
<td>Grad st or cons inst; Scand St 410</td>
<td>Fall, Spring</td>
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<td>Prereq: Grad st or cons inst; Scand St 410</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>Study of the dominant concerns of authors, adult and non-adult audiences.</td>
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<td>Typically Offered: Every Other Spring</td>
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<tr>
<td></td>
<td>Investigating topics such as nostalgia, trauma, personal and cultural</td>
<td></td>
<td>L&amp;S Level: Advanced</td>
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<td></td>
<td>identity, war and Holocaust, sites of memory, and autobiographical</td>
<td></td>
<td>L&amp;S Credit: Counts for LAS credit</td>
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<td></td>
<td>narrative.</td>
<td></td>
<td>Typically Offered: Fall, Spring</td>
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<td></td>
<td>Forms and themes of Scandinavian children's literature from the nineteenth</td>
<td></td>
<td>L&amp;S Level: Intermediate</td>
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<td>century to the present. Exploration of the dominant concerns of authors,</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<tr>
<td></td>
<td>adult and non-adult audiences. Film adaptations and Scandinavian-American</td>
<td></td>
<td>Typically Offered: Occasionally</td>
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<td>materials included.</td>
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<td>L&amp;S Breadth: Literature</td>
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<td></td>
<td>Works by Scandinavian writers of the nineteenth and twentieth century</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>reflecting the role of woman in literature.</td>
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<td>Typically Offered: Fall, Spring</td>
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<td></td>
<td>Penetrating study of an important Scandinavian literary or cultural topic.</td>
<td>1 - 2</td>
<td>L&amp;S Level: Advanced</td>
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<td>Content will vary with each offering.</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>Typically Offered: Spring, Summer</td>
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<td>Typically Offered: Fall, Spring</td>
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<td></td>
<td>Intensive study of dramatic production and the part played by Ibsen as the</td>
<td>4</td>
<td>L&amp;S Level: Advanced</td>
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<td></td>
<td>founder of modern drama.</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>Typically Offered: Fall, Spring</td>
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<td>Typically Offered: Fall, Spring</td>
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<td></td>
<td>Ideas and dramatic practice in the plays.</td>
<td>4</td>
<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>Typically Offered: Fall, Spring</td>
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<td>Typically Offered: Fall, Spring</td>
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<td></td>
<td>Readings in such authors as Hans Christian Andersen, Steen Steensen Blicher,</td>
<td>3 - 4</td>
<td>L&amp;S Level: Advanced</td>
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<td></td>
<td>C.J.L. Almquist, Alexis Kivi, Bjornstjerne Bjornson, Jonas Lie, Alexander</td>
<td></td>
<td>L&amp;S Credit: Counts for LAS credit</td>
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<td></td>
<td>Kielland, Jens Peter Jacobsen, Henrik Pontoppidan, August Strindberg, Selma</td>
<td></td>
<td>Typically Offered: Fall, Spring</td>
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<td>L &amp; S credit: Counts for LAS credit</td>
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<td>L&amp;S Breadth: Literature</td>
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<td>Typically Offered: Fall, Spring</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td></td>
<td>Close study of a limited number of writers (e.g., Kierkegaard, Andersen,</td>
<td>4</td>
<td>Typically Offered: Fall, Spring</td>
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<td>Brandes, Hamsun, Nexo, Undset, Lagerkvist) for their intellectual content.</td>
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<td>L&amp;S Level: Advanced</td>
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<td>Typically Offered: Fall, Spring</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>Typically Offered: Fall, Spring</td>
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<td>Typically Offered: Fall, Spring</td>
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<td></td>
<td>Investigates the relations between theories of memory, both individual and</td>
<td>3</td>
<td>L&amp;S Breadth: Literature</td>
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<td>collective, and modern literary representations of remembering. We survey</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>seminal conceptions of memory in the interdisciplinary field of</td>
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<td>Typically Offered: Every Other Spring</td>
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<td>memory studies, investigating topics such as nostalgia, trauma, personal</td>
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<td>L&amp;S Level: Intermediate</td>
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<td>and cultural identity, war and Holocaust, sites of memory, and</td>
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<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>autobiographical narrative. Through the avenues opened up by these</td>
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<td>Typically Offered: Fall, Spring</td>
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<td>theoretical frameworks, we consider the narrative forms as well as the</td>
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<td>L&amp;S Breadth: Literature</td>
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<td>ethical and political dimensions of remembering in major novels by</td>
<td></td>
<td>L&amp;S Credit: Counts for LAS credit</td>
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<td>Marcel Proust, W. G. Sebald, and Karl Ove Knausgard.</td>
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<td>Typically Offered: Every Other Spring</td>
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</table>
SCAND ST 429 Mythology of Scandinavia Credits: 4
First: an introduction to the pagan religion of Scandinavia, with readings in some of the primary sources (eddaic and skaldic poetry, Snorri Sturluson's Prose Edda, etc.) Second: broadens the definition of mythology to embrace concepts applicable to more recent literature and literary criticism. Prereq: Jr St & 2 yrs of a Scand lang
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 430 The Vikings Credits: 4
Within a historical framework, a thorough introduction to the culture, literature, and religion of the Vikings. Prereq: Jr St or cons inst. Knowledge of a Scand lang is not required
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 431 History of Scandinavia to 1815 Credits: 3
Political, social, economic and cultural developments of Scandinavia through the "Viking Age" to the break-up of Sweden-Finland and Denmark-Norway; emphasis on the interplay between social and political forces and institutions and the area's relationship with the rest of Europe. Prereq: So st
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 432 History of Scandinavia Since 1815 Credits: 3
Political, social, economic, and cultural development: political realignments and rise of nationalism, industrialization and rise of liberalism and socialism, democratization, independence struggles and social conflict, evolution of welfare states, World War II and its aftermath. Prereq: So st
L&S Breadth: Humanities or Soc Sci L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SCAND ST 433 The Scandinavian Tale and Ballad Credits: 4
Readings in the medieval ballads, in the legends and tales recorded during the nineteenth century, and in the nineteenth and twentieth century imitations of these genres. Prereq: 2 yrs of a Scand lang
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 434 The Art of Isak Dinesen/Karen Blixen Credits: 4
Blixen's tales and biographical fiction. Prereq: 2 yrs of a Scand lang
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 435 The Icelandic Sagas Credits: 4
The prose narratives of medieval Iceland. Prereq: Jr st & 2 yrs of a Scand lang
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 436 Topics in Scandinavian Literature Credits: 3 - 4
An examination of selected topics in Scandinavian literature designed for Scandinavian majors and other students. Prereq: Prerequisites vary by topic taught
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SCAND ST 437 Modern Scandinavian Drama Credits: 4
Examination of the theater of Scandinavia in the wake of Henrik Ibsen and August Strindberg that places modern Nordic theater in a wider European context. Prereq: Jr st & 2 yrs of target language
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 440 Scandinavian American Folklore Credits: 3
Examines the verbal, musical, customary, and material folklore of Scandinavian Americans, with emphasis on the upper Midwest. Requires field and archival research. Prereq: Jr st
L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SCAND ST 443 Sami Culture, Yesterday and Today Credits: 4
Interdisciplinary study of Sami (Lapp) people of Scandinavia past and present. Indigenous modes of expression and worldview, contemporary cultural and political activism. Extensive discussion of connections to Native American and Inuit experiences; rise of U.S. and other indigenous peoples' movements. Prereq: Jr st or cons inst
Ethnic Studies: Yes L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally
SCAND ST 444 Kalevala and Finnish Folk-Lore Credits: 4
Kalevala and the oral literature of Finland. Prereq: Jr st or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 446 Celtic-Scandinavian Cultural Interrelations Credits: 3
Examination of shared traditions and historical connections between the North and Northwest of Europe. Readings of medieval and pre-modern Scandinavian, Scottish, Welsh and Irish sagas, histories, tales. Discussion of the role of folklore in modern Celtic and Scandinavian societies. Prereq: So st or above required, or cons inst.
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 450 Scandinavian Decadence in its European Context Credits: 3 - 4
Examines the European context of literary decadence (Baudelaire, Huysmans, Wilde) and how it inspired some of Scandinavia’s most important writers (Strindberg, Hamsun, Jacobsen). Prereq: 2 yrs of a Scand lang or equivalent.
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 466 Greenland - Past, Present, and Future Credits: 3
Introduction to Greenland, the world’s largest island, including history, geography, language, religion, culture, arts, literature, and existence in a postcolonial context, which recognizes the important cultural and economic ties with Denmark. A comparison with indigenous cultures in Alaska and Canada, sharing Inuit traditions. Prereq: Open to Fr.
Ethnic Studies: Yes  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SCAND ST 475 The Writings of Hans Christian Andersen for Scandinavian Majors Credits: 4
In-depth discussion of selected texts, historical and literary background material, application and discussion of pertinent literary criticism, independent student presentations, and a research paper, in addition to the coursework done in Scand St 375. Prereq: 2 yrs of Scand language or consent of instructor. Open to Freshmen.
L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SCAND ST 476 Scandinavian Life and Civilization II Credits: 4
Scandinavian culture in all its aspects ranging from past history up to contemporary trends in politics and ideologies. Prereq: 2 yrs of Nordic lang or cons inst. Open to Fr.
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SCAND ST 496 The Scandinavian Heritage in America Credits: 3
Nineteenth century Scandinavian immigration, with field trips. Prereq: 2 yrs of a Scand lang or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SCAND ST 501 Tal Och Skrift Credits: 2
Training in oral and written presentation of specialized technical material in the Scandinavian languages. Prereq: Scand St 401 and 402
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 510 Topics in Scandinavian Linguistics Credits: 3
Hands-on introduction to a topic in Scandinavian language study. Course topics designed to be relevant to graduates. Prereq: Grad st or cons inst; Scand St 415
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SCAND ST 511 Paleography and Philology - Old Norse Credits: 3
A history of writing in Iceland 1150-1550 on the basis of manuscripts as principal sources of evidence for Old Norse-Icelandic. Prereq: Scand St/Medieval 407 or 408
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SCAND ST 520 Special Topics Credits: 3
Prereq: L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 577 Contemporary Scandinavia: Politics and History Credits: 3 - 4
Social, economic, and ideological changes, institutions, and movements and their relationships with the political processes and structures in the Nordic states. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
SCAND ST 630 Fundamentals of Bibliography and Research Credits: 3
Research resources and methodology; scholarly search and literary criticism. Prereq: Grad st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 634 Survey of Scandinavian Literature: 1500-1800 Credits: 3
Reformation, Renaissance, Baroque, Rationalism, Pre-Romanticism. Prereq: 2 yrs of a Scand lang or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SCAND ST 635 Survey of Scandinavian Literature: 1800-1890 Credits: 3
Romanticism, Realism, and Naturalism. Prereq: 2 yrs of a Scand lang or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SCAND ST 636 Survey of Scandinavian Literature: 1890-1920 Credits: 3
Fin de siecle, the beginnings of Modernism and Social Realism. Prereq: 2 yrs of a Scand lang or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SCAND ST 681 Senior Honors Thesis Credits: 3
Prereq: Cons of Undergrad adviser
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 682 Senior Honors Thesis Credits: 3
Prereq: Cons of Undergrad adviser
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 698 Directed Study Credits: 1 - 6
Graded on Cr/N basis. Prereq: Sr st. Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 699 Directed Study Credits: 1 - 6
Graded on a letter basis. Prereq: Sr st. Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SCAND ST 710 Topics in Depth Credits: 1 - 2
Penetrating study of an important Scandinavian literary or linguistic topic. Content will vary with each offering.
Prereq: Grad st or cons inst
Typically Offered: Occasionally

SCAND ST 799 Independent Study Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Occasionally

SCAND ST 901 Seminar in Special Topics Credits: 2 - 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally

SCAND ST 990 Research and Thesis Credits: 1 - 6
QL Prereq: Grad st
Typically Offered: Occasionally

SCAND ST 999 Independent Reading Credits: 1 - 6
Prereq: Grad st and cons inst
Typically Offered: Occasionally

SCIENCE & TECHNOLOGY STUDIES

STS 201 Where Science Meets Society Credits: 3
An overview of science and technology studies. Explores science and technology as central institutions in modern societies. Teaches approaches to analyzing social dimensions of recent advances in areas such as genetics, environment, Internet, surveillance, and nanotechnology. Prereq: Prior college-level work in social studies (S, W, Y, or Z) or science (B, N, P, W, or X) or permission of instructor
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
**STS 403 Special Topics in Science & Technology Studies** Credits: 3
An interdisciplinary exploration of one or more high profile issues motivating debate and discussion among science and technology studies scholars. Topics will vary. Prereq: Sophomore standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

**STS 699 Directed Study** Credits: 1 - 3
Available for undergraduates interested in STS, who have completed STS 201, but is intended primarily as a means for ISSuES certificate students to fulfill their capstone requirement. Prereq: STS 201; Jr/Sr St or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**STS 734 Science Studies and Science Education** Credits: 3
Examination of the key ideas from the field of science and technology studies (history, philosophy, sociology of science, etc.) and how they have been taken up in both the school science curriculum as well as the science education research community. Prereq: None
Typically Offered: Occasionally

**STS 901 Science, Technology and Medicine in Society** Credits: 3
Designed to introduce students to key themes, issues and scholarship in the interdisciplinary fields of science and technology studies. Explores how different disciplinary perspectives contribute to and influence the questions, methods and theoretical approaches within particular fields of science studies. Prereq: Grad st
Typically Offered: Occasionally

**STS 902 Current Topics in Science and Technology Studies** Credits: 1
Designed to introduce students to key themes, issues and scholarship in the interdisciplinary field of science and technology studies (STS). Participating faculty and speakers will be drawn from the social sciences, humanities, and physical and life sciences. Prereq: Grad st
Typically Offered: Occasionally

**STS 903 Special Topics in Science and Technology Studies** Credits: 3
An interdisciplinary exploration of one or more high profile issues motivated debate and discussion among science and technology studies scholars. Topics will vary. Prereq: Grad st only
Typically Offered: Fall, Spring

**STS 999 Independent Study in Science and Technology Studies** Credits: 1 - 6
A tutorial style course arranged between an STS graduate minor student and an STS faculty affiliate. The topic of the course, the specific reading requirements, writing, and student-faculty meetings will be outlined in a student-faculty "contract." Prereq: Only graduate students may take this course and may only do so in consultation with Holtz Center director and the affiliated faculty member with whom the student intends to work
Typically Offered: Fall, Spring

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**SLAVIC (SLAVIC LANGUAGES)**

**SLAVIC 101 First Semester Russian** Credits: 4
Five hours a week focusing on speaking, listening, reading and writing Russian, with an introduction to Russian culture. No previous knowledge of Russian expected. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**SLAVIC 102 Second Semester Russian** Credits: 4
Continuation of Slavic 101. Prereq: Slavic 101 or equiv. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**SLAVIC 111 First Semester Polish** Credits: 4
For students who have not studied Polish. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

**SLAVIC 112 Second Semester Polish** Credits: 4
Prereq: Slavic 111. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring
SLAVIC 115 First Semester Czech Credits: 4
Designed to help students acquire proficiency in Czech through understanding, speaking, reading and writing. For students who have not previously studied Czech. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

SLAVIC 116 Second Semester Czech Credits: 4
Designed to help students acquire proficiency in Czech through understanding, speaking, reading and writing. For students who have not previously studied Czech. Continuation of Slavic 115. Prereq: Slavic 115 or equiv
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

SLAVIC 117 Intensive Second Year Russian Credits: 4
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SLAVIC 118 Intensive Second Year Russian Credits: 4
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SLAVIC 141 First Semester Serbo-Croatian Credits: 3
Designed to develop the primary language skills in Serbo-Croatian (speaking, listening/understanding, reading, and writing). For students who have not previously studied Serbo-Croatian. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

SLAVIC 142 Second Semester Serbo-Croatian Credits: 3
Designed as a follow-up course to 141 as students continue to develop skills in Serbo-Croatian (speaking, listening/understanding, reading, and writing). Prereq: Slavic 141 or equiv. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

SLAVIC 181 Russian Honors Tutorial for Slavic 101 Credits: 1
Prereq: Con reg for hon cr in Slavic 101. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

SLAVIC 182 Russian Honors Tutorial for Slavic 102 Credits: 1
Prereq: Con reg for hon cr in Slavic 102. Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

SLAVIC 203 Third Semester Russian Credits: 4
Five hours a week focusing on speaking, listening, reading and writing Russian, with continued study of Russian culture. Prereq: Slavic 102 or equiv. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SLAVIC 204 Fourth Semester Russian Credits: 4
Continuation of Slavic 203. Prereq: Slavic 203 or equiv. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SLAVIC 207 Third Semester Polish Credits: 4
Reading, conversation exercises, and grammar review. Prereq: Slavic 112 or cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SLAVIC 208 Fourth Semester Polish Credits: 4
Reading, conversation exercises, and grammar review. Prereq: Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

SLAVIC 217 Third Semester Czech Credits: 4
Continuation of Slavic 116. Focus on developing proficiency in understanding, speaking, reading, and writing Czech. Prereq: Slavic 116 or cons inst. Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SLAVIC 218 Fourth Semester Czech Credits: 4
Continuation of Slavic 217. Designed to develop proficiency in understanding, speaking, reading, and writing Czech. Prereq: Slavic 217 or cons inst Open to Fr
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
SLAVIC 242 Literatures and Cultures of Eastern Europe Credits: 3
Introduction to the literature, culture and art of Eastern Europe. Prereq: Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 245 Topics in Slavic Literatures Credits: 3
Exploration of various topics - periods, genres, individual writers, themes, problems, etc. in Russian and Eastern European literature. Prereq: Open to Fr
L&S Breadth: Literature  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 251 Third Semester Serbo-Croatian Credits: 3
Continuation of 142. Focus on developing proficiency in speaking, understanding, reading and writing Serbo-Croatian. Prereq: Slavic 142 or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 252 Fourth Semester Serbo-Croatian Credits: 3
Continuation of 251. Focus on developing proficiency in speaking, understanding, reading and writing Serbo-Croatian. Prereq: Slavic 251 or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 253 Russia: An Interdisciplinary Survey Credits: 4
Comprehensive interdisciplinary survey of Russian civilization from its beginnings through the present day. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 254 Eastern Europe: An Interdisciplinary Survey Credits: 4
Comprehensive interdisciplinary survey of East European culture, society, politics, and literature from its beginnings to the present day. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 255 Third Year Russian I Credits: 3 - 4
Prereq: Slavic 118, 204, or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 256 Third Year Russian II Credits: 3 - 4
Prereq: Slavic 275 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 277 Third Year Polish I Credits: 3
Review of Polish grammar. Reading, oral practice, and composition. Prereq: Slavic 208 or cons inst. Open to Fr
L&S Breadth: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 278 Third Year Polish II Credits: 3
Review of Polish grammar. Reading, oral practice and composition. Prereq: Slavic 208 or equiv, or cons inst. May be taken out of sequence with Slavic 277. Open to Fr
L&S Breadth: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 279 Intensive Third Year Russian Credits: 8
Intensive course covering entire academic-year third-year Russian course in one semester. Improvement of Russian proficiency in all four skills, with an emphasis on reading and writing. Review of Russian grammar, development of complex syntax, vocabulary, and lengthier discourse. Prereq: Slavic 204 or equivalent
L&S Breadth: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

SLAVIC 283 Russian Honors Tutorial for Slavic 203 Credits: 1
Prereq: Con reg for hon cr in Slavic 203. Open to Fr
L&S Breadth: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 284 Russian Honors Tutorial for Slavic 204 Credits: 1
Prereq: Con reg for hon cr in Slavic 204. Open to Fr
L&S Breadth: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
SLAVIC  285 Slavic Culture in Context: An Honors Course  Credits: 3
 Topics will vary. This course is a writing and discussion intensive seminar that introduces students to one or more
 Slavic (Russian, Polish, Serbian, Czech, Croatian, Bosnian...) languages, literatures, and/or cultures within a
 global context. Enrollment priority given to freshmen/sophomore Honors students; other Honors students may
 enroll as space permits. No Slavic language required, although some knowledge of a non-English language is
 useful. Prereq: For honors students only, or by consent of the instructor
 L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

SLAVIC  299 Directed Study  Credits: 1
 Prereq: Cons inst
 L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC  301 Introduction to Intensive Polish  Credits: 3
 Intensive coverage of the structure of the Polish language. Rapid introduction to reading and speaking. Prereq:
 Jr st, open to Fr & So with cons inst
 L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC  302 Zarys historii literatury polskiej  Credits: 3
 An overview of the history of Polish literature. Prereq: Slavic 277, Slavic 301 or cons inst
 L&S Breadth: Literature  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC  304 Fourth Semester Intensive Polish  Credits: 4
 Advanced grammar and reading: reading selections from various sources in Polish literature, history, and culture.
 Prereq: Slavic 301. Grad st or cons inst
 L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC  305 Fifth Semester Intensive Polish  Credits: 3
 Vocabulary reinforced through literature, film and journalism. Readings and discussions related to issues of
 contemporary Polish society. Continued work on grammar and vocabulary with written exercises and
 compositions. Prereq: Slavic 304. Grad st or cons inst
 L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC  306 Sixth Semester Intensive Polish  Credits: 3
 Continuation of 305. Reading selections from twentieth century Polish literature. Focus on intensive writing.
 Prereq: Slavic 305. Grad st or cons inst
 L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC  307 Study Abroad in Poland  Credits: 1 - 4
 A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq:
 Slavic 208 or equiv
 L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC  308 Polish Culture and Area Studies on Study Abroad  Credits: 1 - 4
 A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq:
 Slavic 208 or equiv
 L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC  309 Russian Area Studies on Study Abroad  Credits: 1 - 4
 A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq:
 Slavic 204 or equiv
 L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC  310 Topics in Russian: Study Abroad  Credits: 1 - 6
 A course carried with a UW-Madison study abroad program which has no equivalent on this campus. Prereq:
 Current reg in a UW-Madison study abroad prgm
 L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC  315 Russian Language and Culture I  Credits: 2
 Emphasizes speaking and listening skills, helping students to converse on different stylistic levels, with varying
 degrees of formality, according to the rules of Russian speech etiquette. Prereq: Slavic 204 or equiv
 L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
SLAVIC 316 Russian Language and Culture II Credits: 2
Emphasizes speaking and listening skills, helping students to converse on different stylistic levels, with varying
degrees of formality, according to the rules of Russian speech etiquette. Prereq: Slavic 275 or equiv
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 321 Fourth Year Russian I Credits: 4
Prereq: Slavic 276 or consent of instructor
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 322 Fourth Year Russian II Credits: 4
Prereq: Slavic 321 or cons inst
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 325 Eastern Christianity/Russian Orthodoxy in a Global Context Credits: 3
The course will focus on the history and doctrine of Eastern Christianity from its origins in the early Church
through today, with special emphasis placed on the cultural manifestations of Orthodox doctrine, including liturgy,
iconography, ritual practice. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 331 Fourth Year Polish I Credits: 3
Extensive reading, discussion, composition, and grammar review. Prereq: Slavic 278 or cons inst. Open to Fr
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 332 Fourth Year Polish II Credits: 3
Extensive reading, discussion, composition, and grammar review. Prereq: Slavic 331 or cons inst. Open to Fr
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 341 First Semester Intensive Serbo-Croatian Credits: 3
Rapid introduction to Serbo-Croatian grammar, reading, and speaking. Prereq: Grad st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 342 Uvod u srpsku i hrvatsku literaturu Credits: 3
This course introduces students to the fundamentals of Serbian and Croatian literature. Students learn how to
speak, write and use the basic concepts of literary analysis: character, plot, setting, style, etc. Prereq: Slavic
341, Grad st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 350 Special Topics in Russian Language, Literature, and Culture Credits: 3
Prereq: Slavic 275 and 276 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 351 First Semester Intensive Czech Credits: 3
Rapid introduction to Czech grammar, reading, and speaking. Prereq: Grad st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 352 Second Semester Intensive Czech Credits: 3
Rapid introduction to Czech grammar, reading, and speaking. Prereq: Slavic 351. Grad st or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 362 Drama for Teaching and Learning Credits: 3
This is a methods course useful for all involved in teaching and learning, including foreign languages. Introduction
to philosophy, methodology, and practice of the use of drama and performance techniques in any educational or
recreational settings. Focus on creativity and embodied and contextual learning, based on current neurological, psychological, and
sociological research. A practical class which includes demonstration and practice with children. Prereq: So st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SLAVIC 405 Women in Russian Literature Credits: 3 - 4
Prereq: Slavic 276 or equiv
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
SLAVIC 420 Chekhov Credits: 3 - 4
Prereq: Slavic 276 or equiv
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 421 Gogol Credits: 3 - 4
Prereq: Slavic 276 or equiv
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 422 Dostoevsky Credits: 3 - 4
Prereq: Slavic 276 or equiv
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 424 Tolstoy Credits: 3 - 4
Prereq: Slavic 276 or equiv
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 433 History of Russian Culture Credits: 3
First in a two-semester course sequence, this course focuses on those topics in Russian cultural history that are most often discussed by Russians and serve as the basis for contemporary political and media discourse.
Prereq: Slavic 322 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 434 Contemporary Russian Culture Credits: 3
Second in a two-semester course sequence, this course focuses on those topics in modern Russian cultural history that are most often discussed by Russians and serve as the basis for contemporary political and media discourse. Prereq: Slavic 322 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 439 Russia Today in Literature and Film Credits: 4
Students will learn about changing Russian society, as reflected in Russian literature and film from 1985 through the present day. Prereq: Slavic 276 or equiv
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SLAVIC 440 Soviet Literature Credits: 3 - 4
Prereq: Slavic 276 or equiv
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SLAVIC 441 Third Semester Intensive Serbo-Croatian Credits: 3
Advanced reading and discussion, primarily twentieth century Serbian and Croatian literatures. Prereq: Slavic 342, Grad st or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 442 Fourth Semester Intensive Serbo-Croatian Credits: 3
Continuation of 403. Prereq: Slavic 441 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SLAVIC 449 Hitorija srpske i hrvatske literature Credits: 3
Major literary movements of Serbian and Croatian literatures from the medieval period until the formation of the Yugoslav state in 1919. Readings in Serbo-Croatian. Prereq: Slavic 342 or equiv
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 451 Third Semester Intensive Czech Credits: 3
Advanced grammar and reading: reading selections from various sources in Czech literature, history, and culture. Prereq: Slavic 352 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 452 Fourth Semester Intensive Czech Credits: 3
Continuation of 451, reading selections from twentieth century Czech literature. Prereq: Slavic 451 or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
SLAVIC 454 Moderna srpska i hrvatska literatura Credits: 3
Continuation of Slavic 449, from 1919 until the present. Study of major twentieth-century writers. Readings in Serbo-Croatian. Prereq: Slavic 342 or equiv
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 470 Historia literatury polskiej do roku 1863 Credits: 3
Intensive study of major writers such as Kochanowski, Sep Szarzynski, Krasicki, Mickiewicz, and Slowacki. Readings in Polish. Prereq: Slavic 470
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 472 Historia literatury polskiej po roku 1863 Credits: 3
A comprehensive survey of Polish literature and its historical background from 1863 to the present. Readings in Polish. Prereq: Slavic 470
L&S Breadth: Literature  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 532 History of Russian Theatre Credits: 3
The history of Russian theatre and related arts (including opera and ballet) with emphasis on performance history. Prereq: Jr st
L&S Breadth: Literature  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 560 Capstone Seminar in Russian Literature and Culture Credits: 3
Conducted entirely in Russian. Designed for advanced students of Russian to study an aspect of Russian literature or culture in depth. Topics vary. Prereq: Slavic 322 and one 400-level course in Russian literature or culture; cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SLAVIC 681 Senior Honors Thesis Credits: 3
Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 682 Senior Honors Thesis Credits: 3
Continuation of 681. Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SLAVIC 701 Survey of Old Russian Literature Credits: 2
Prereq: Graduate or professional standing
Typically Offered: Occasionally

SLAVIC 702 Eighteenth-Century Russian Literature Credits: 2
Prereq: Slavic 321-322
Typically Offered: Occasionally

SLAVIC 703 Foundations in Russian Romanticism Credits: 3
This course introduces students to Russian Romanticism and provides them with a solid foundation in both primary texts and secondary scholarship in the field. Prereq: Graduate standing
Typically Offered: Every Other Fall

SLAVIC 705 Special Topics in Russian Language/Linguistics Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SLAVIC 707 Foundations in Russian Realism (~1840-1890s) Credits: 3
This course provides students with a deep knowledge of the masterworks of the 19th century and the broader literary, historical, political, intellectual and cultural contexts in which they arose and which they shaped. Prereq: Graduate standing
Typically Offered: Every Other Fall
SLAVIC 708 Foundation in Russian Modernism (~1890s-1930s) Credits: 3
This course introduces students to various trends in Russian Modernist literature from the 1890s through the 1930s. Prereq: Graduate standing
Typically Offered: Every Other Fall

SLAVIC 709 Foundation in Soviet, Emigre, and Post-Soviet Literature (~1930-present) Credits: 3
This course will cover, at the graduate level, the Soviet, Emigre, and Post-Soviet periods of Russian literature. In addition, it will engage the movements and conceptual issues shaping and influencing the production of Russian/Soviet literary texts from 1917 until the present day: e.g., realism, socialist realism, exile (internal and external), dissidence, postmodernism. Prereq: Graduate standing
Typically Offered: Every Other Spring

SLAVIC 755 Topics in Slavic Literature Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

SLAVIC 799 Independent Study Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Occasionally

SLAVIC 800 Proseminar-Slavic Literature and Culture Credits: 1
The purpose of this course is three-fold: an introduction to the faculty in our department, an introduction to the Slavic field in general, and an introduction to research methods in Slavic. Prereq: None
Typically Offered: Fall

SLAVIC 801 Slavic Critical Theory and Practice Credits: 3
This course introduces students to the original works of major trends representing literary theory in the Slavic world and wider: formalism, materialism, structuralism, semiotics, deconstruction, psychoanalysis, gender-based theory and other relevant theories that have influenced the way we treat literature as a cultural and aesthetic practice. Prereq: None
Typically Offered: Occasionally

SLAVIC 802 The Structure of Russian Credits: 2
This course provides advanced students with a theoretical and practical introduction to the linguistic structure of Contemporary Standard Russian. Prereq: Slavic 275, 276
Typically Offered: Occasionally

SLAVIC 803 Introduction to Old Church Slavonic and the History of Russian Literary Language Credits: 2
This course introduces students with advanced competence in modern Russian to Old Church Slavonic (OCS) and its impact on the formation of Russian literary language. Prereq: Slavic 275, 276
Typically Offered: Occasionally

SLAVIC 804 Methods of Teaching Slavic Languages Credits: 2
Students will investigate the history of foreign language instruction, various models of adult foreign language acquisition, methods for teaching Russian, the creation of testing instruments, issues relevant to course design, and criteria for textbook selection. Prereq: Graduate standing & Slavic 321
Typically Offered: Occasionally

SLAVIC 820 College Teaching of Russian Credits: 1
This course is designed and required for current Slavic Department Russian-language Teaching Assistants and provides important professional development in course design, lesson planning, and assessment. Course participants work cooperatively to develop course activities and assessment instruments, and will learn how to identify and solve problems in the classroom. Prereq: Teaching assistant in Russian
Typically Offered: Occasionally

SLAVIC 891 Apprenticeship in Teaching Credits: 1
Professional development in the pedagogy of literature, culture, and advanced language teaching. Prereq: Graduate standing
Typically Offered: Fall, Spring
SLAVIC 892 Apprenticeship in Writing Credits: 1
Professional development on advanced writing and publication in the field for graduate students. Prereq: Graduate standing
Typically Offered: Fall, Spring, Summer

SLAVIC 900 Seminar: Slavic Literature and Culture Credits: 1 - 3
Advanced level graduate seminar on topics related to Slavic literature and culture. Prereq: Graduate standing
Typically Offered: Fall, Spring

SLAVIC 991 Individual Research-Slavic Literature Credits: 1 - 12
Prereq: For Grads only
Typically Offered: Occasionally

SOCIAL WORK

SOC WORK 100 So You Want to Change the World? Credits: 3
Students talk about wanting to make a difference - to change the world in some way. This course, especially designed for freshmen, helps students examine their ideas and values related to making a difference, teaches them to think critically about the meaning and methods of changing the world, and challenges them to integrate thoughtful evidence with their values and beliefs about doing good in the world. With a focus on the profession of social work and other helping professions, the course will consider a variety of social problems, and investigate and critique various approaches to creating change to improve social problems. Prereq: None
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

SOC WORK 105 Health Care Systems: Interdisciplinary Approach Credits: 2
Introduction to health care systems. Factors affecting health and the value placed on health, the delivery of health care in different settings, the roles of various health workers, and the sociological and economic aspects of health care. Prereq: Open to all undergrads
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC WORK 205 Introduction to the Field of Social Work Credits: 4
A basic survey. Historical development, formation of social welfare policies, and the role of the social work professional. Prereq: So st
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC WORK 206 Introduction to Social Policy Credits: 4
Provides an awareness of problems and concepts of the policy process in the U.S. Explores the political, economic, and institutional frameworks which structure public social welfare choices. Might include income maintenance, child welfare, mental health, corrections. Prereq: So st
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC WORK 275 Contemporary Issues in Social Welfare Credits: 1 - 3
Topics will vary, reflecting new issues and trends in the social services. See Timetable for topics. Prereq: Open to Fr
L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SOC WORK 299 Directed Study Credits: 1 - 3
Program of study devised by a student in collaboration with a faculty member. Graded on a lettered basis; requires consent of instructor. Prereq: Cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SOC WORK 400 Field Practice and Integrative Seminar I Credits: 2 - 6
An approved professional foundation field placement in direct social work practice in a community agency setting. A minimum of 16 hours per week, including an integrative field unit seminar. The first course of the two-seminar field sequence. Prereq: Sr or Grad st; Social Work major; cons of field director
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC WORK 401 Field Practice and Integrative Seminar II Credits: 2 - 6
Continuation of Social Work 400. Prereq: Sr or Grad st; Social Work major; Soc Work 400; cons field director
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
SOC WORK  420 Poverty and Social Welfare  Credits: 3  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK  422 Social Issues in Aging  Credits: 3  
This course is designed to give students an understanding of the origins, nature and scope and dynamics of the social problems of older adults and their families in the U.S. and to acquaint students with programs and services available to older adults.  Prereq: An Intro Soc course (Soc 140, 181, 210, or 211) or Soc Work 205  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK  440 Practice I: Foundations of Generalist Practice  Credits: 1 - 2  
Provides a conceptual base for generalist social work practice at all intervention levels. Helps students learn social work purposes, values, ethics, processes, roles, methods, and integrate social work theory and practice.  Prereq: Sr or Grad st, soc work major  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SOC WORK  441 Practice II: Generalist Practice with Individuals, Families & Groups  Credits: 1 - 3  
Develops generalist social work knowledge and skills for working with and on behalf of individuals, families, and groups. Lectures and labs focus on development of basic social work direct practice skills.  Prereq: Sr or Grad st, soc work major  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SOC WORK  442 Practice III: Generalist Practice with Communities and Organizations  Credits: 1 - 2  
Exposes students to the theory and practice of planned change in communities and organizations and helps them incorporate a generalist model into practice at these levels of intervention.  Prereq: Senior or Graduate standing, social work major, Social Work 440 & 441  
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC WORK  453 Alcohol and Other Drug Abuse  Credits: 2 - 4  
Presentation of social, legal, political, and ethical considerations surrounding the use and abuse of alcohol and psychotropic drugs in the U.S.  Prereq: Jr st  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC WORK  454 Small Groups in Social Work Practice  Credits: 3  
Exploration and application of theory to the formation and development of small groups deliberately used by social workers to effect specified change in interpersonal relationships.  Prereq: Soc work/welfare major  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

SOC WORK  457 Human Behavior and the Environment  Credits: 3  
Physiological, psychological, and social changes throughout the life cycle. Major crisis and developmental tasks at each point in terms of their implications for social work practice.  Prereq: Soc work/welfare major  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC WORK  462 Child Welfare  Credits: 3  
Supportive, supplementary, and substitute child welfare services employed in dealing with the problems of dependent, neglected, delinquent children. Scope, method, problems, trends of the services; child welfare in other countries; sociology of the child welfare worker.  Prereq: Soc work/welfare major  
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC WORK  521 African American Families  Credits: 3  
Historical background; variations in contemporary family patterns; courtship and marriage, reproduction, and socialization stresses; “culture of poverty” theories; sources of stability and change.  Prereq: Junior standing  
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK  523 Family Violence  Credits: 3  
An overview of the risk factors and trauma effects of the major forms of family violence. Models of prevention and intervention will be described. Attitudes about family violence will be explored. Basic skills for detecting abuse and making referrals will be taught.  Prereq: Jr or Sr st; soc work/welfare majors  
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
SOC WORK 575 Community Development in Social Welfare Credits: 3
Analysis of theory and practice of community development in selected cultural settings in the U.S. and other countries; role of community development in social welfare systems; problems and techniques of developing local citizen interest and leadership; community development in relation to other social work methods and community institutions and processes. Prereq: Soc work/welfare major
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK 578 Homelessness: A Service Learning Course Credits: 4
Introduction to the complex issues surrounding homelessness in America including epidemiology, demographics, history and public beliefs and attitudes. It explores structural conditions and personal attributes posited as causes of contemporary homelessness. Varying social policies and service needs of homeless persons are discussed. Prereq: Jr or Sr st; soc welfare major
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 579 Special Topics in Social Work Credits: 1
Intensive study of selected topics in the field of social work. Prereq: Jr st; cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC WORK 605 The Field of Social Work Credits: 2
Nature, purpose, function, and organizational content of the profession. Historical development; a consideration of the development of the social welfare institutions, formation of social welfare policies and their impact on practice, and the role of the social work professional. Prereq: Grad st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK 606 Social Policy Credits: 2
Analysis of policy issues as applied to such fields as poverty, discrimination, crime, physical and mental health on both national and state levels. Prereq: Grad st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK 612 Psychopathology in Generalist Social Work Practice Credits: 2
This foundation course prepares social work students to recognize major mental health concerns across the lifespan. The course includes an introduction to the Diagnostic and Statistical Manual of Mental disorders (DSM) as the organizing framework for reviewing major mental disorders and critique of the current "medical model" approach to mental health in the United States. The course considers mental health issues from a generalist perspective including the role of the social environment, culture and stigma in mental health services, access and policy. Prereq: Senior standing and declared in Bachelor of Social Work program
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

SOC WORK 624 Social Work with the Small Group Credits: 2 - 3
Exploration of the small group as the interventive unit; major models and techniques; principles guiding the selection of the small group approach to intervention based on research knowledge of problems, processes, and outcomes. Prereq: Sr or Grad st, soc work major & Soc Work 440
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC WORK 626 Social Work with the Community Credits: 2 - 3
Community relationships in public and voluntary social services; principles of community organization and social welfare administration. Prereq: Sr or Grad st, soc work major & Soc Work 440
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC WORK 639 Gay, Lesbian, Bisexual, and Transgender (GLBT) Individuals and Social Welfare Credits: 2 - 3
The purpose of this course is to introduce contemporary topics related to the social welfare of gay, lesbian, bisexual and transgender (GLBT) individuals. Issues addressed are related to development, health disparities, family, research, history, and ethics. The course is designed to enhance student understanding of issues related to GLBT individuals in America. A life cycle perspective will be presented to highlight the unique issues of LGBT people at various stages of human development. Overlapping sexual orientation, in addition to these generational considerations, are the many other aspects of diversity present in the LGBT community, including race, ethnicity, class, gender, physical and L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
This course prepares students for generalist social work practice in a multicultural society. It discusses Afro-Americans, Hispanics, American Indians, and Asian Americans, and implications are drawn for social policy.

**Prereq:** Soc work/welfare major

**Ethnic Studies:** Yes  
**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall

**SOC WORK 642 Social Work and Adolescents** Credits: 2 - 3

Drawing on multiple theoretical perspectives and a critical review of the literature, students explore practice implications and interventions regarding problems of adolescents and at-risk youth with a focus on environmental influences that affect normal development.

**Prereq:** Soc work/welfare major

**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring, Summer

**SOC WORK 643 Social Work and Delinquency** Credits: 2 - 3

This course is designed to enhance students' knowledge base regarding social work services to youth who are troubled and delinquent. The course examines etiological factors that contribute to mental health issues experienced by this population. These factors along with a basic conceptual understanding of child and adolescent psychopathology will be applied to the social work process of assessment, treatment, and prevention for this population.

**Prereq:** Open to Social Welfare Majors, BSW and MSW students and others with instructor consent

**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Spring

**SOC WORK 644 Issues in Developmental Disabilities** Credits: 2 - 3

Definition, incidence, and prevention of intellectual and other developmental disabilities. Examines the life-cycle needs of this population, as well as social welfare issues, social services available, and the social worker's role.

**Prereq:** Junior Standing, social work/welfare major

**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring, Summer

**SOC WORK 646 Child Abuse and Neglect** Credits: 2 - 3

The course is concerned with physical, emotional and sexual abuse of children, child neglect and exploitation.

**Prereq:** Soc work/welfare major

**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring

**SOC WORK 648 End-of-Life: Implications and Challenges for Practice** Credits: 1 - 3

Focuses on social work practice with children, adolescents, adults and elders who have terminal illness, as well as their families.

**Prereq:** Open to Social Welfare Majors, BSW and MSW students. Others with faculty consent.

**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring

**SOC WORK 650 Methods of Social Work Research** Credits: 2 - 3

Social research and problems of project design and programming. Distinctive characteristics of investigations directed to planning, administrative, and scientific objectives.

**Prereq:** Jr st, stat requirement filled, soc welfare major, BSW or MSW stdts

**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Spring

**SOC WORK 656 Family Practice in Foster and Kinship Care** Credits: 2 - 3

Social welfare issues from national and local perspective, research, and foster care practice.

**Prereq:** Jr st and Social Work major, open to special students

**L&S Breadth:** Social Science  
**L&S Level:** Intermediate  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring

**SOC WORK 657 Understanding Latino Families and Communities** Credits: 3

Examines U.S. Latino families and communities, including social and economic conditions, cultural values, and issues of identity, race, gender, discrimination, acculturation and language. A service-learning course, students gain knowledge of and direct experience with social work issues in Latino communities.

**Prereq:** Jr st

**Ethnic Studies:** Yes  
**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring

**SOC WORK 658 American Indian Affairs** Credits: 2 - 3

Contemporary concerns and conditions of American Indians examined in historical, cultural and legal perspective.

**Prereq:** Jr st

**Ethnic Studies:** Yes  
**L&S Breadth:** Social Science  
**L&S Level:** Advanced  
**L&S Credit:** Counts for LAS credit  
**Typically Offered:** Fall, Spring
SOC WORK 659 International Aspects of Social Work  Credits: 2 - 3
Prereq:  Jr st and Social Work 205 or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC WORK 661 Topics in Contemporary Social Welfare  Credits: 2 - 3
Continuation of 660.  Prereq:  Jr st, soc work/welfare major
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 662 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Jr st, soc work/welfare major
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 663 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Jr st, soc work/welfare major
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 664 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Jr st, soc work/welfare major
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 665 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Jr st, soc work/welfare major
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 672 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Prerequisites vary
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 673 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Prerequisites vary
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

SOC WORK 674 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Prerequisites vary
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 675 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Prerequisites vary
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 676 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Prerequisites vary
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 679 Topics in Contemporary Social Welfare  Credits: 2 - 3
Prereq:  Prerequisites vary
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC WORK 681 Senior Honors Thesis  Credits: 3
Prereq:  Senior standing and consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SOC WORK 682 Senior Honors Thesis  Credits: 3
Prereq:  Senior standing and consent of instructor & Soc Wk 681
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC WORK 691 Senior Thesis  Credits: 2
Prereq:  Senior standing and consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
SOC WORK 692 Senior Thesis Credits: 2
Prereq: Sr st cons inst & Soc Wk 691
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC WORK 699 Directed Study Credits: 1 - 3
Prereq: Jr or Sr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC WORK 700 Part-Time MSW Program Exemption Term Credits: 0
Course for students in the Part-Time MSW Program to maintain UW-Madison status when they have partial exemptions and no other courses available. Prereq: Admission to Part-Time MSW Program
Typically Offered: Fall, Spring, Summer

SOC WORK 711 Human Behavior and the Environment Credits: 2
The literature on human behavior and the environment is reviewed from a bio-psychosocial perspective. Special attention is given to understanding individual and family behavior and development as a function of reciprocal interactions with groups, communities, organizations, and society. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 712 Psychopathology in Social Work Credits: 2
Teaches social workers to recognize selected major mental disorders and to become familiar with social work practice approaches used in treatment of these disorders. Prereq: Grad st
Typically Offered: Occasionally

Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 721 Methods of Planning Analysis Credits: 3
Research methods and statistics used in analyzing planning problems: conceptualization, design, and implementation of planning research; statistical methods for analyzing data including review of inferential statistics, analysis of variance, correlation, and multiple regression; use of computer; review of sources of planning data. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 741 Interventions with Children, Youth, and Families Credits: 2
Addresses multi-level interventions with children, youth, and families across multiple service systems, with an emphasis on practice innovations. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 742 Assessing and Treating Children and Adolescents Credits: 2
An advanced practice course on social work treatment methods with children and adolescents from a cognitive behavioral perspective. Assessment, treatment, and generalization of change strategies; problem-solving; resource development; intervention planning and other practice issues are explored. Prereq: Grad st
L&S Level: Advanced  Typically Offered: Occasionally

SOC WORK 746 Interdisciplinary Care of Children with Special Health Care Needs Credits: 3
Interdisciplinary team care of children with special health care needs across the trajectory of illness presented within the context of family, culture, social determinants of health, community, and healthcare policy. Students introduced to interdisciplinary, collaborative, family-centered team care. Prereq: Grad st and/or cons inst
Typically Offered: Occasionally

SOC WORK 799 Independent Study Credits: 1 - 6
Independent study for MSW graduate students. Prereq: Graduate Standing-MSW
Typically Offered: Fall, Spring, Summer

SOC WORK 800 Field Practice and Integrative Seminar III Credits: 2 - 6
An approved advanced social work practice field placement in an area of concentration. A minimum of 20 hours per week, including an integrative field unit seminar. The first of the two-semester advanced field sequence. Prereq: Grad st; cons of field director
Typically Offered: Occasionally
SOC WORK 801 Field Practice and Integrative Seminar IV Credits: 2 - 6
Continuation of Social Work 800. Prereq: Grad st; Soc Work 800; cons of field director
Typically Offered: Occasionally

SOC WORK 821 Aging and Mental Health Credits: 2
Prepares front line social workers to address mental health needs of older adults and their family members.
Examines common mental health conditions, assessment, planning, evidence-based individual, family and group interventions, resources, cultural competence, ethical issues, and contexts for practice. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 822 Family Law: Marriage and Divorce Credits: 2 - 4
Marriage and less formal spousal relationships, husband-wife relationships in on-going marriage; divorce and its economic and custody consequences; post-divorce relationships. Prereq: Cons inst required for Social Work
Typically Offered: Occasionally

SOC WORK 823 Family Law: Parent and Child Credits: 3 - 4
The relationship of parent and child; the rights of unmarried mothers and fathers and their children; parental rights to custody vis a vis third parties; parents' rights to make decisions affecting children; neglect; termination of parental rights; the foster care system and adoption. Prereq: Graduate or professional standing
Typically Offered: Occasionally

SOC WORK 825 Grief, Death, Loss and Life Credits: 2
This course introduces social work students to the nature and centrality of the experience of loss and subsequent grief in their personal lives, in the lives of their clients, and in their role as professional helpers. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 835 Advanced Soc Work Practice in Mental Health Credits: 1 - 2
Focuses on the core practice theories, conceptual frameworks, and intervention skills necessary for social work practice in mental health. Prereq: Graduate standing in social work
Typically Offered: Occasionally

SOC WORK 836 Mental Health Policies and Services Credits: 2 - 3
Prepares students for leadership roles in mental health programs, agencies and organizations. Examines mental health policies and services that influence care and treatment of persons with mental illness and shape mental health care systems, programs and services. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 840 Advanced Macro Practice Credits: 2
Explores multiple approaches social workers use to influence groups, organizations, communities and systems. Concepts, theories and models of macro level practice and advanced practice skills for addressing complex practice and organizational situations are examined. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 841 Administration in Social Work Credits: 2 - 3
Principally focused on developing management skills through case material and structured activities. Students go through the various sequential activities involved in conceptualizing and getting funding for a human service program, and in developing and managing a nonprofit organization. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 842 Consultation and Supervision in Social Work Credits: 2 - 3
Learning patterns, principles and methods of supervision and consultation. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 845 Crises Intervention in Social Work Credits: 2 - 3
Meaning of crisis to client systems and social work practitioners; principles guiding rational decision to intervene at the point of "critical incident". Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 850 Recent Developments in Social Work Credits: 1 - 3
Topics Change. Topics under this course number apply to the Foundation curricular area. Prereq: Grad standing
Typically Offered: Occasionally
SOC WORK 861 Recent Developments in Social Work Credits: 1 - 3
Topics change. Topics under this course number relate to the Advanced curricular area. Prereq: Grad standing
Typically Offered: Occasionally

SOC WORK 862 Recent Developments in Social Work Credits: 2 - 3
Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 863 Recent Developments in Social Work Credits: 2 - 3
Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 868 Recent Developments in Social Work Credits: 2
Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 869 Recent Developments in Social Work Credits: 2 - 3
Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 870 Assessing and Treating Adults Credits: 1 - 2
An advanced practice course that teaches evidence-based interventions used by clinical social workers in the treatment of serious mental illnesses. Prereq: Grad standing
Typically Offered: Occasionally

SOC WORK 873 Social Work Practice in Health Care Credits: 2
Develops advanced practice knowledge and skills for social workers practicing in health and health care settings. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 874 Advanced Practice in Health, Aging, and Disability Credits: 2
Develops advanced practice knowledge and skills related to practice issues common to social workers practicing in the areas of aging, health, and/or disability. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 875 Health, Aging, and Disability Policy and Services Credits: 2
Provides knowledge about the contemporary organization of health care, as well as policies and services for older adults and people with disabilities. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 880 Prevention Science Credits: 3
This course provides a theoretical, empirical and practical foundation for prevention science as it relates to the prevention of human social problems. Research and evaluation methods, program design strategies, best practices and policy as they relate to the field of prevention are also examined. Intended for 2nd year graduate students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

SOC WORK 881 Capstone Seminar in Prevention Science Credits: 1
This course provides an opportunity for students to meet with prevention professionals and scholars from across campus and the community to explore current and emerging issues of prevention research and professional practice. Students must complete HDFS 880 before taking this course. Prereq: Consent of instructor
Typically Offered: Occasionally

SOC WORK 887 Nonprofit Leadership Credits: 3
Nonprofit leadership focuses on developing management skills for the nonprofit area through readings, case materials and structured activities. Students examine the context, issues and skills associated with leadership and management in nonprofit organizations and apply them to challenges and opportunities that confront administration of nonprofits. Prereq: Social Work or La Follette Graduate student or consent of instructor
Typically Offered: Occasionally
SOC WORK 890 Thesis-Research Credits: 1 - 6
Research and thesis for MSW students who wish to submit a master's thesis or conduct independent research. Prereq: Graduate Standing-MSW Student
Typically Offered: Fall, Spring, Summer

SOC WORK 920 Child, Youth, and Family Policies and Services Credits: 2
Considers legislation, policies, and institutional structures that affect children, youth, and families across multiple service systems. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 921 Child Welfare Credits: 2 - 3
Implications of knowledge from the social and behavioral sciences and public welfare policy on child welfare problems and services. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 923 Family Violence Credits: 2
An overview of the risk factors and trauma effects of the major forms of family violence. Models of prevention and intervention will be described. Attitudes about family violence will be explored. Basic skills for detecting abuse and making referrals will be taught. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 924 Family Problems and Social Work Credits: 2 - 3
Review of family theory and its relevance for social work practice; an analysis of family subsystems in the U.S.; current research on the American family. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 929 Social Work and Substance Abuse Credits: 2 - 3
History, current understanding, assessment, and treatment of problematic substance abuse. Provided knowledge and social work skills to conceptualize, screen, assess, and treat substance abuse and co-occurring disorders (i.e., mental illness and substance use disorders. A biopsychosocial perspective is emphasized. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 945 Evaluation Research Credits: 3
A comprehensive introduction to practice of program evaluation research in social welfare and human development. Developments in descriptive, experimental, quasi-experimental, theory-driven, and naturalistic evaluations detailed. Topics include assessment, evaluation design, monitoring, outcome evaluation, selection bias, program theory, meta-analysis and utilization. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 946 Faculty Research Seminar Credits: 1
This course is designed to: further the socialization of students to the Ph.D. program, its aims and objectives; provide opportunities for faculty to discuss research interests and doctoral education. Prereq: Grad st
Typically Offered: Occasionally

SOC WORK 947 Student Research Seminar Credits: 1
Course designed to: provide a forum for students to discuss experiences, success strategies and research interests; provide opportunities for advanced doctoral students to receive feedback on their research and later, on colloquia they prepare for their job searches. Prereq: Graduate or professional standing
Typically Offered: Occasionally

SOC WORK 948 Proseminar Credits: 1 - 3
Doctoral seminars. Prereq: Cons inst
Typically Offered: Occasionally

SOC WORK 949 Proseminar Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

SOC WORK 950 PhD Proseminar Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally
SOC WORK  951 PhD Proseminar  Credits: 1 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

SOC WORK  952 PhD Proseminar  Credits: 3
Prereq:  Cons inst
Typically Offered: Occasionally

SOC WORK  954 Social Work Education  Credits: 2 - 3
Past, present, and future developments of professional education.  Prereq:  Grad st
Typically Offered: Occasionally

SOC WORK  990 Thesis-Research  Credits: 2 - 3
Prereq:  Cons inst
Typically Offered: Occasionally

SOC WORK  999 Independent Reading  Credits: 1 - 9
Prereq:  Cons inst
Typically Offered: Occasionally

SOCIOMETRY

SOC  120 Marriage and Family  Credits: 3 - 4
Sociology of the family. Demographic, social-psychological, economic, and historical aspects. Union formation and dissolution. Childbearing and childrearing. Social stratification and the family. Intergenerational support. Social consequences of family behaviors.  Prereq:  None
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC  125 American Society: How It Really Works  Credits: 3 - 4
Explanation of US performance in realizing the values of freedom, fairness, and democracy. Topics include markets, capitalism, democracy, capitalist democracy; class, race, and gender inequalities; militarism and US international role; and US electoral politics, media, and social mobilization.  Prereq:  None
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC  130 Social Problems  Credits: 3
Conditions and processes in personal and social maladjustment; nature of social disorganization and social problems; their relation to social change and basic ideological, technological, and institutional structures and processes.  Prereq:  None
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC  131 Criminal Justice in America  Credits: 3 - 4
Day-to-day functioning of the elements of the criminal justice system in the U.S. Nature of crime in the U.S., ideas about causes and solutions. Emphasis on the sociology of the components of criminal justice system--organization and roles of police, lawyers, court and correctional personnel.  Prereq:  Open to Fr & So only, until end of Fr reg period. Sdnts may receive cr for only one of the following: Soc 131 or 431
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC  134 Problems of American Racial and Ethnic Minorities  Credits: 3 - 4
The nature of inter-group relations; emphasis on various forms of racism, discrimination, and white privilege; historical background and characteristics of American Indians, African Americans, Hispanic Americans, Asian Americans and other racial and ethnic minorities; a consideration of economic, housing, political, legal, educational, familial, and health challenges faced by minority groups in US society.  Prereq:  None
Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC  138 The Sociology of Gender  Credits: 3 - 4
A sociological examination of the status and roles of women and men in society, including the experiences of marriage, parenthood, employment and occupational attainment, socialization into sex roles and cultural reinforcement of these. Attention will be given to both existing patterns and change in those patterns.  Prereq:  None
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
SOC 140 Introduction to Community and Environmental Sociology  Credits: 3
Sociological examination of the linkages between the social and biophysical dimensions of the environment. Key topics include community organizing, local food systems, energy transitions, environmental justice, resource dependence, and sustainable development. Gateway to advanced courses in sociology.  Prereq:  None
L&S Breadth:  Social Science  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 160 Human Sexuality: Social and Psychological Issues  Credits: 3 - 4
Biological, psychological and sociological aspects of sexual relationships and behavior. The course presents theoretical and empirical materials on sexuality throughout the life-course, including childhood, adolescence, adulthood, and later life. Attention is given to gender, religion, education and the law as they relate to sexual expression in society.  Prereq:  Not open to students who have taken Soc/Psych 350
L&S Breadth:  Social Science  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 170 Population Problems  Credits: 3 - 4
Social, economic, and political problems affected by birth and death rates, population size and distribution, voluntary and forced migration. World ecology, limits to growth, economic development, international conflict, environmental quality, metropolitan expansion, segregation by age, race, and wealth. Policies affecting reproduction, nuptiality, morbidity, mortality, migration.  Prereq:  None
Ethnic Studies:  Yes  L&S Breadth:  Social Science  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 181 Honors Introductory Seminar-The Sociological Enterprise  Credits: 3 - 4
An introduction to the paradigms, methods and substance of sociology. Gateway to advanced courses in sociology.  Prereq:  Honors status. Freshmen who have satisfied Comm A requirement. Not open to students who have taken Soc/C&E Soc 210 or Soc/C&E Soc 211
General Education:  COM B  L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 198 Directed Study  Credits: 1 - 3
Program of study devised by a student in collaboration with a faculty member. Graded on a Cr/N basis. Open only to freshmen and sophomores.  Prereq:  Open to Fr & So only. Graded on Cr/N basis; requires written cons inst
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 199 Directed Study  Credits: 1 - 3
Program of study devised by a student in collaboration with a faculty member. Graded on a lettered basis. Open only to Fr and So.  Prereq:  Open to Fr & So only. Graded on a lettered basis; requires written cons inst
L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 200 Introduction to Lesbian, Gay, Bisexual, Transgender and Queer+ Studies  Credits: 3 - 4
A multidisciplinary introduction to lesbian, gay, bisexual, transgender, and queer (LGBTQ) studies, including theories of identity formation, different societal interaction with LGBTQ communities, LGBTQ cultures in history, and contemporary legal and political issues. Course materials explore the intersections between LGBTQ identities and other socially marginalized identities, including (but not limited to) those based on race, ethnicity, religion and disability.  Prereq:  None
Ethnic Studies:  Yes  L&S Breadth:  Humanities or Soc Sci  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 205 Intercultural Dialogues  Credits: 3
Intercultural Dialogues (ICD) promotes diversity on campus by bringing students of different backgrounds together for discussion, projects, and gatherings outside of class.  Prereq:  Consent of Instructor
Ethnic Studies:  Yes  L&S Level:  Elementary  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

SOC 206 Leadership in Intercultural Dialogues  Credits: 3
Leadership in Intercultural Dialogues is for student facilitators and apprentices of Soc 205, Intercultural Dialogues (ICD), which promotes diversity on campus by bringing students of different backgrounds together for discussion, projects, and gatherings outside of class. Students must complete SOC 205 to be eligible for this course.  Prereq: Consent of instructor
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring
SOC 210 Survey of Sociology Credits: 3 - 4
Introduction to the field of American sociology, its subfields and specialized areas of research, theoretical traditions and research methods. Gateway to advanced courses in sociology. Prereq: Open to Freshmen who have satisfied Comm A requirement. Not open to students who have taken Soc 181 or Soc/C&E 211
General Education: COM B  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 211 The Sociological Enterprise Credits: 3
Basic principles and definitions of sociology. Readings and discussion of the perspectives of sociology, the individual and society, groups and social process, stratification, organizations and power, demography, and social change. Gateway to advanced courses in sociology. Prereq: Not open to students who have taken Soc 181 or Soc/C&E Soc 210
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 215 Gender and Work in Rural America Credits: 3
Sociological dimensions of men's and women's work in nonmetropolitan areas of the United States. Examines gender divisions of "work" in its fullest sense: paid work in formal and informal economies, self-employment, and nonmarket work such as housework. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 220 Ethnic Movements in the United States Credits: 3 - 4
Sociological analysis of historical and recent ethnic/racial conflict and movements in the U.S., including the relations between European Americans, African Americans, Mexican Americans, Native Americans, and Asian Americans, with additional material on other groups and relations. Prereq: Satisfied Comm A requirement  Ethnic Studies: Yes  General Education: COM B  L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 222 Food, Culture, and Society Credits: 3
Social and cultural dimensions of the production, preparation, and consumption of food. Uses historical and cross-cultural analytical frameworks. Treats a wide variety of topics including pre-capitalist food systems, hunger, vegetarianism, sustainable agriculture, food and gender, genetic engineering. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 225 Contemporary Chinese Society Credits: 3
Basic social science "literacy" of contemporary China: introduction on the main institutions of traditional Chinese society; and the social changes in various aspects of contemporary Chinese society since 1949, including the economy, family, education, social stratification, politics, legal reform, and the urban/rural divide. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 236 Bascom Course Credits: 3
A low-enrollment course developing skills in critical reading, logical thinking, use of evidence, and use of library resources. Emphasis on writing in the conventions of specific fields. Prereq: Successful completion of or exemption from Com A requirement. Open to Fr.
General Education: COM B  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 244 Introduction to Southeast Asia: Vietnam to the Philippines Credits: 4
Southeast Asian history, religion, folklore and literatures, educational systems, and politics from the early classical states to contemporary social, literary, and political developments. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 245 Technology and Society Credits: 3
Students are introduced to a wide range of work on technology, the social forces shaping its development, and social impacts of its adoption. Students are encouraged to examine their assumptions about technology and its relationship to society. Prereq: Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 248 Environment, Natural Resources, and Society Credits: 3
Introduces the concerns and principles of sociology through examination of human interaction with the natural environment. Places environmental issues such as resource depletion, population growth, food production, environmental regulation, and sustainability in national and global perspectives. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
SOC 250 Organizations and Society Credits: 3 - 4
Role of organizations, including industrial, governmental, and educational ones, in American society. Topics: impact of organizations on members and clients, the internal dynamics of organizations, and the interchange between organizations and their environment, including the society as a whole. Prereq: Sophomore standing
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 252 The Civilizations of India-Moder Period Credits: 4
Contemporary India society as a joint product of the classical heritage and world-wide movements toward nationalism; social and economic development. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SOC 258 The Jews, States, and Citizenship: A Sociological Perspective Credits: 3
Introduction to historical sociology of citizenship through a comparative investigation of Jewish emancipation in nineteenth-century Europe, including social origins of emancipation, its consequences for the social organization and collective identity of Jews, and Jewish responses to emancipation. Prereq: Open to Fr
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

SOC 260 Latin America: An Introduction Credits: 3 - 4
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

SOC 277 Africa: An Introductory Survey Credits: 4
African society and culture, polity and economy in multidisciplinary perspectives from prehistory and ancient kingdoms through the colonial period to contemporary developments, including modern nationalism, economic development and changing social structure. Prereq: Open to Fr
L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 320 Research Practicum in Sociology Credits: 1 - 3
Practical experience in techniques of social research through work on a research project for the semester.
Prereq: Sociology 357 or equivalent or consent of instructor
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SOC 350 Human Sexuality Credits: 4
Provides an interdisciplinary introduction to biological, psychological, and sociological aspects of human sexuality.
Prereq: Sophomore standing or consent of instructor. Not open to students who have taken Soc/Psy 160
L&S Breadth: Social Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SOC 357 Methods of Sociological Inquiry Credits: 3 - 4
Scientific methods in the study of society; procedures for testing sociological theory: problem definition, hypothesis construction, collection and evaluation of data. Practical experience conducting small research projects. Should be taken as early as possible by students considering a major in Sociology. Prior statistics not required. Gateway to advanced courses in sociology. Prereq: Not open to students who have taken Soc 358
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SOC 360 Statistics for Sociologists I Credits: 4
Presentation of sociological data; descriptive statistics; probability theory and statistical inference; estimation and tests of hypotheses; regression and correlation and the analysis of contingency tables; lectures and lab. Gateway to advanced courses in sociology. It is recommended that students take Soc 357 prior to taking this course.
Prereq: Satisfied Quantitative Reasoning (QR) A requirement. Not open to students who have taken Soc 359
General Education: QR-B L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 361 Statistics for Sociologists II Credits: 3
Applied linear regression modeling for social scientists. Bivariate and multiple regression, dummy variables, interactions, nonlinear relationships, indirect effects and omitted variable bias, outliers, heteroskedasticity, and multicollinearity; associated diagnostics and corrections. Use of Stata and/or SAS for dataset creation and analysis. Lectures and lab. Prereq: Sophomore standing. Sophomore standing, and Soc/Community & Environmental Soc 360 or equivalent
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
SOC 362 Statistics for Sociologists III Credits: 3
Generalized linear models with selected applications to social science data. Topics: Review of multiple regression; properties of estimators; general linear restrictions; instrumental variables; two-stage least squares; panel data; fixed and random effects; logit, probit, and related models. Lectures and lab. Prereq: Junior standing. Soc 361 or equivalent
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SOC 365 Data Management for Sociological Research Credits: 3 - 4
Understanding the structure of different types of social scientific data, techniques for data evaluation, cleaning, documentation and visual display, merging data from multiple sources, restructuring data for analysis. Prereq: Completion of or concurrent enrollment in SOC/C&E SOC 360, PSYCH 210, PSYCH 280, GEN BUS 303, STAT 301, ECON 310, STAT/MATH 310, GEOG 360, or POLI SCI 551
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 375 Introduction to Mathematical Sociology Credits: 3
Explores mathematical models of social structure, focusing especially on social network analysis and related methods. Makes extensive use of matrix algebra and mathematical software. Matrix algebra recommended. Prereq: Junior standing. Soc 360 or equivalent or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 376 Mathematical Models of Social Systems Credits: 3
Explores mathematical models of social process employing dynamical systems, Markov chains, and simulation analysis. Examples will address a wide range of sociological topics including cultural evolution, demography, social influence, social-network formation, religion, residential segregation, and social movements. Prereq: Junior standing. Soc 375 or Math 320 or Math 340 or Math 341 or Math 375 or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC 380 Contemporary Population Problems for Honors Credits: 3
This course is designed to identify, examine the nature and evaluate the evidence regarding key population problems affecting modern societies in the developed and developing world. The course emphasizes the development of demographic models as a tool to frame, define and investigate these problems. Examples of problems studied include: relations between population growth and environment, population growth and socioeconomic development, population and emergence of new diseases. Prereq: Honors status. Soc 360 or equivalent or consent of instructor
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 415 The Legal Profession Credits: 3 - 4
History, structure, and functioning of legal professions in the United States and in other countries around the world. Prereq: None
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 421 Processes of Deviant Behavior Credits: 3 - 4
Factors and conditions that underlie disagreement about fundamental values which inform views and conceptualizations of deviance; their relation to personal and social maladjustment; deviant behavior across different social contexts. Prereq: Sophomore standing. Soc/Community & Environmental Soc 357, and Soc/Community & Environmental Soc 360 or equivalent
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 422 Social Issues in Aging Credits: 3
This course is designed to give students an understanding of the origins, nature and scope and dynamics of the social problems of older adults and their families in the U.S. and to acquaint students with programs and services available to older adults. Prereq: An Intro Soc course (Soc 140, 181, 210, or 211) or Soc Work 205
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 441 Criminology Credits: 3 - 4
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
SOC 446 Juvenile Delinquency Credits: 3 - 4
Concepts of childhood and delinquency. Measurement of delinquent behavior. Application of competing theories to relationships within the family, school, and peer group. Evaluation of programs for treatment, prevention, and control. The rise of the juvenile system. Prereq: Sophomore standing. Intro Soc course (Soc 140, 181, 210, or 211) or Soc/Legal Studies 131
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 460 Study Abroad in Demography and Ecology Credits: 1 - 6
This course provides a sociology area equivalency for demography and ecology courses taken on Madison study abroad programs that do not equate exactly to existing sociology courses. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 461 Study Abroad in Additional Methods and Statistics Credits: 1 - 6
This course provides a sociology area equivalency for additional methods and statistics courses taken on Madison study abroad programs that do not equate exactly to existing sociology courses. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 462 Study Abroad in Additional Theory Credits: 1 - 6
This course provides a sociology area equivalency for additional theory courses taken on Madison study abroad programs that do not equate exactly to existing sociology courses. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 463 Study Abroad in Deviant Behavior Credits: 1 - 6
This course provides a sociology area equivalency for deviant behavior courses taken on Madison study abroad programs that do not equate exactly to existing sociology courses. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 464 Study Abroad in Social Psychology Credits: 1 - 6
This course provides a sociology area equivalency for social psychology courses taken on Madison study abroad programs that do not equate exactly to existing sociology courses. Prereq: Enrollment in a UW-Madison study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 465 Study Abroad in Social Organization Credits: 1 - 6
This course provides a sociology area equivalency for social organization courses taken on Madison study abroad programs that do not equate exactly to existing sociology courses. Prereq: Enrollment in a UW-Madison resident study abroad program
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 470 Sociodemographic Analysis of Mexican Migration Credits: 3
Introduces students to social and demographic analysis and explanations of the historical and present day causes and consequences of migration of the largest immigrant group to the United States in the 20th century. Prereq: Chic/Std 201, 215, 220, 234, 210, or 205
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 475 Classical Sociological Theory Credits: 3
Classical theory: Marx, Durkheim, Weber, and other important classical theorists and schools of thought. Gateway to advanced courses in sociology. Prereq: Introductory Sociology course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
**SOC 476 Contemporary Sociological Theory** Credits: 3
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**SOC 477 Feminism and Sociological Theory** Credits: 3
This course reviews the ways that feminist critiques have reshaped social theory since 1960. It examines the ways that feminist theorists have reconceptualized classical sociological problems and how this has influenced the ways research in conducted. Prereq: Soc 475 or any Gender & Women's Studies course carrying "S" or "Z" or "Y" breadth category.
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**SOC 496 Topics in Sociology** Credits: 1 - 3
Intensive study of selected topics in sociology. Prereq: Jr st & cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**SOC 497 Study Abroad in Sociology** Credits: 1 - 6
A course carried with a UW-Madison Study Abroad Program that has no equivalent on this campus. Prereq: None
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**SOC 530 Introductory Social Psychology** Credits: 3 - 4
The systematic study of the individual in a social context, including social interaction, motivation, attitudes, conformity, communication, leadership, personal relationships, and behavior in small groups. Prereq: Sophomore standing and one of: Intro Soc course (Soc 140, 181, 210, or 211), Psych 201, Psych 202, Psych 281, or Anthro 100. Graduate students must have consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

**SOC 531 Sociology of Medicine** Credits: 3
Cultural, social, and social psychological factors in disease processes, distribution of disease, social definitions of illness, and organization of the health professions and health facilities. Prereq: Jr st and intro course in soc or cons inst
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**SOC 532 Health Care Issues for Individuals, Families and Society** Credits: 3
Issues related to health and health care delivery in our society. Topics include social, cultural and ethical influences on consumer definitions of health and use of medical care, and on the health care system's responses. Prereq: Intro Soc course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

**SOC 533 Public Health in Rural & Urban Communities** Credits: 3
Sociological approaches to community, rural, and public health. Examines epidemiological evidence for and policy solutions to health issues that impact vulnerable populations in diverse geographic and social settings. Topics include mental health, environmental and occupational health, preventive care, substance abuse. Prereq: Intro Soc course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

**SOC 535 Talk and Social Interaction** Credits: 3
Focus on the systematic observation and analysis of face-to-face interaction. Sociological approaches to naturally occurring interaction--i.e., human talk and behavior that has been observed, audiorecorded, or videorecorded--will be explored. The approaches include ethnomethodology, conversational analysis, and Goffmanian sociology. Prereq: Two Social Studies courses, or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

**SOC 540 Sociology of International Development, Environment, and Sustainability** Credits: 3
Sociological analysis of relationships among economic growth, environmental sustainability and social justice in the developing world. Considers frameworks for understanding poverty, hunger, educational and technological inequality, and the impact of globalization on prospects for socially and ecologically sustainable development. Prereq: Intro Soc course (SOC 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
SOC 541 Environmental Stewardship and Social Justice Credits: 3
Application of sociological theory and analysis to environmental issues. Course examines the ways in which environmental stewardship and conflict are embedded within broader cultural, social, and political contexts.
Prereq: Any of the following: Soc Intro course (Soc 140, 181, 210 or 211), Soc/C&E Soc/Forest and Wildlife Ecology 248, Environmental Studies 112, Environmental Studies 113, Environmental Studies/Geography 139, Environmental Studies/Geography 337, Environmental Studies/Geography 339, or Geography 101
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 543 Collective Behavior Credits: 3
Emergence of various forms of collective behavior from social interactions, collective action problem, game theory, prospect theory, social networks, network effects, information cascade, increasing returns, social influence, epidemics, social movements, mass media.
Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 544 Introduction to Survey Research Credits: 3
Theory and practice of survey research; planning, sampling, questionnaire construction, interviewing, content analysis, machine tabulation, analysis of data; two hours lecture; two hours lab or field work.
Prereq: Junior standing
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 573 Community Organization and Change Credits: 3
Examines theories of community change and different models of community organizing.
Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 575 Sociological Perspectives on the Life Course and Aging Credits: 3
Age as a basis of societal differentiation in modern and premodern societies; social psychological, demographic, sociobiological, socioeconomic, and sociohistorical views of age-graded events and behaviors; examination of the life course and aging as sociological variables.
Prereq: Soc 357 or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 578 Poverty and Place Credits: 3
The allocation of economic and social rewards in the United States; emphasis on persistently poor regions and communities; analysis of selected minority groups and their poverty statuses; poverty programs and their consequences for structural and cultural changes.
Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 601 Sociology of Work, Family, and Gender Credits: 3
Examines the social issues and forces involved in the intersection of work, family, and gender. Considers how and why men's and women's experiences at work and at home differ, and how experiences in one realm affect experiences in the other.
Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or Gender & Women's Studies 102
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 610 Knowledge and Society Credits: 3
Examines topics related to what has been called the "knowledge society." Explores various aspects of science and technology as they shape and are shaped by post-industrial societies.
Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 611 Gender, Science and Technology Credits: 3
Examination of issues and theories in gender and science. Topics include historical and contemporary studies of technoscientific and medical constructions of sex/gender differences; feminist studies of science, technology, and medicine; proposals of new epistemologies.
Prereq: Junior standing and one of Soc 475, G&WS 441, G&WS 445, or G&WS 477, or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
**SOC 614 Social Structures of Muslim Societies** Credits: 3
Analysis of legal, religious, familial, educational, and political institutions in Muslim societies, with special attention to the interaction between these institutions and contemporary social and economic processes. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

**SOC 617 Community Development** Credits: 3
Social, cultural and personality factors influencing community development, with reference to developing countries as well as contemporary rural communities; consideration of theoretical and operational issues. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

**SOC 620 Comparative Racial Inequality** Credits: 3
The construction of racial orders is treated in a comparative and historical framework, involving both Western and non-Western societies. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science Ethnic Studies: Yes L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**SOC 621 Class, State and Ideology: an Introduction to Marxist Social Science** Credits: 3
Core theoretical problems and themes of contemporary Marxist social science, focusing on the theory of history, classes, the state and ideology. Prereq: Grad standing, or Junior standing and consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

**SOC 622 Advanced Topics in Critical Sociology** Credits: 3
Topics include: Marxism and feminism; race and class; alternative theories of history; methodological issues in contemporary Marxism. Prereq: Soc 475
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

**SOC 623 Gender, Society, and Politics** Credits: 3
Examines the relationship between the social structures of gender (e.g., the domestic division of labor, sex-segregated occupational structures, gender ideologies, the social organization of sexuality) and political institutions, political activities, and state policies. Prereq: Junior standing. Soc 357 or a Gender & Women's Studies course with a S, Y or Z breadth designation
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**SOC 624 Political Sociology** Credits: 3
Theory of democracy, political culture, comparative studies of voting behavior, political decisions, collective violence, regime breakdowns, social movements, mobilization processes, frame analysis. Prereq: Soc 475
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**SOC 626 Social Movements** Credits: 3
Role of social structure, authorities and movement participants, and leadership in the origins, mobilization, participation, strategy and tactics, and potential for success of social movements. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or Soc 220 or Soc 357
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**SOC 630 Sociology of Developing Societies/Third World** Credits: 3
Review of problems and prospects of so-called "developing societies." Includes theory of economic/social development, political economic organizations of "developing" societies, history of colonialism/imperialism, attempts to industrialize and results of those attempts. Prereq: Junior standing
L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

**SOC 632 Sociology of Organizations** Credits: 3 - 4
Sociological perspectives on the structures and processes of large-scale formal organizations in Western society; a wide ranging examination of contemporary organizational theory and research, with illustrations from business, governmental, military, political and educational organizations. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
SOC 633 Social Stratification Credits: 3
Classical and contemporary theories of the nature of social inequality; recent patterns and trends in inequality in the US; analysis of inequalities based on class, race, gender; the relationship of inequality to globalization, immigration, and politics. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 360
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 634 Social Structure of India Credits: 3
Analysis of the major institutions of India with special attention to the relationship between Hindu community organization, caste and the family; the effects of political developments, population growth, industrialization, and urbanization. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 640 Sociology of the Family Credits: 3
Examines family life from a sociological perspective, drawing on insights from demography, economics, history and anthropology. Considers theories and empirical evidence about families as social institutions; patterns of family change; and families and inequality. Prereq: Soc 360 or equivalent
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 641 Sociology of Law Credits: 3 - 4
Theory and research on the social origins, processes and effects of law; examination of law-related behavior, legal institutions, law and social structure, and law and social change; linkage to contemporary theoretical and political debates. Prereq: Junior standing and Soc 441 or Soc 475, or Law student
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 643 Sociology of Occupations and Professions Credits: 3
Introduction to theories and empirical studies on occupations and professions. Examination of the historical change, social structure, market competition, lifestyles, career path, workplace interaction, and other aspects of professional life from the late nineteenth century to the age of globalization. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 645 Modern American Communities Credits: 3
Relevance of the concept of community to American society. Review of several basic theories of community and analysis of the nature of community in the broader political and economic context. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 646 Race and Ethnic Relations Credits: 3
Institutional, ecological, demographic, and social psychological aspects in the United States and elsewhere; historical and contemporary coverage. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
Ethnic Studies: Yes  L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 647 Sociology of Sport Credits: 3
Sport as a social institution; social characteristics and problems of sport at the youth, school, college, and professional levels. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 648 Sociology of Education Credits: 3
Educational institutions as social systems; role relationships, community contexts, relevant values and ideals, stratification, mobility, and recruitment to varied educational organizations, comparative educational systems. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 360 or equivalent, or School of Education classification, or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

SOC 649 Sociology of Work and Employment Credits: 3
Introduction to key themes in the sociology of work and employment. Uses comparative, historical, and theoretical perspectives to analyze contemporary transformations of work and employment in the 'new economy', with particular emphasis on the United States, Western Europe, and Japan. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 357
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring
SOC 650 Sociology of Agriculture Credits: 3
Introduction to sociology of agriculture in advanced industrial-capitalist societies, including theoretical, historical, and empirical issues of agriculture in the United States. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 652 Sociology of Economic Institutions Credits: 3
Sociological perspectives on the organization of the firm, financial markets, and work, intermediate associations (unions, ethnic economies), the state, and the international economy. Contrast between neoclassical, traditional institutionalist, post-fordist, and neo-fordist perspectives on the nature and evolution of these institutions. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 655 Microfoundations of Economic Sociology Credits: 3
A review and critique of economic theory from a sociological perspective. Reviews central concepts of contemporary microeconomics (e.g., rationality, exchange, strategic interaction, evolution, information), addressing critiques and alternatives offered by economic sociologists, economists, and other behavioral and social scientists. Prereq: Intro Soc (Soc 140, 181, 210, or 211), Soc 357, Soc 360, Senior standing, and consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 663 Population and Society Credits: 3
Social and economic determinants and consequences of contemporary and historical population trends in both developed and developing societies. Fertility, mortality, migration, population distribution, age structure, population growth. Prereq: Any one of the following: Soc 170, Soc 357, Soc 380, Econ 101, Econ 111, AAE 215; or consent of instructor
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 670 Capitalism, Socialism, and Democracy in America Since 1890 Credits: 3 - 4
Political institutional arrangements which have emerged since 1890 and how they have influenced social and economic policies implemented since the Second World War. Why the working class has been politically weak in America; policy consequences of this weakness. Prereq: Junior standing and any one of these: Intro Soc course (Soc 140, 181, 210, or 211), Soc 125, Hist 102, or Hist 109. Soc 475 recommended
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 674 Demographic Techniques I Credits: 3
Methods of measurement for enumeration and registration data; construction of life tables; measures of fertility, nuptiality and migration; examination of census variables. Prereq: Junior standing. Soc 357 or consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SOC 676 Applied Demography: Planning and Policy Credits: 3
Introduction to demographic concepts, methods, data, and trends for application in business, government, planning and other applied areas. Emphasis on U.S. census data and their uses. Prereq: Intro Soc course (Soc 140, 181, 210, or 211) and Soc 357
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SOC 678 Sociology of Persecution Credits: 3
Persecution as an object of sociological investigation with special focus on the perpetrators' motivations, the machinery of persecution policies, the behaviors of state agents, and the attitudes and strategies displayed by the potential victims. Prereq: Junior standing. Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

SOC 681 Senior Honors Thesis Credits: 3
Prereq: Honors status. Intro Soc course (Soc 140, 181, 210 or 211), Soc 357, Soc 360, Soc 475, and written consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SOC 682 Senior Honors Thesis Credits: 3
Continuation of 681 Prereq: Honors status, Soc 681, and written consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
SOC 691 Senior Thesis Credits: 2 - 3
Prereq: Intro Soc course (Soc 140, 181, 210 or 211), Soc 357, Soc 360, Soc 475, Senior standing, major in Soc, and consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 692 Senior Thesis Credits: 2 - 3
Continuation of 691 Prereq: Soc 691 and written consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 693 Practicum in Analysis and Research Credits: 3
Practical experience in techniques of social research through assignment to a research project for the semester. Lectures, readings, and discussions of the art and practice of research and the writing of research reports. For undergraduate and graduate students participating in the department's Concentration in Analysis and Research. Prereq: Soc 357, Soc 360, Soc 361, and CAR internship. Open only to students currently enrolled in CAR
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SOC 694 Criminal Justice Field Observation Credits: 2 - 3
Field placements and seminar sessions to develop sociological understanding of criminal justice processes. Placement in criminal justice agencies and lectures and discussions applying concepts and theories to field experience. Prereq: Soc 131 and Criminal Justice Certificate declaration
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Summer

SOC 698 Directed Study Credits: 1 - 6
Graded on a Cr/N basis. Prereq: Junior standing and written consent of instructor. Graded on a Credit/No-Credit basis
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 699 Directed Study Credits: 1 - 6
Graded on a lettered basis. Prereq: Junior standing and written consent of instructor. Graded on a lettered basis
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SOC 700 Introductory Proseminar for Graduate Students Credits: 1
An introduction to current issues in sociology and its subfields. Prereq: Must be first-year Grad stdt in sociology and its subfields
Typically Offered: Occasionally

SOC 708 Societal Risk Management of Technological Hazards Credits: 3
Issues involved in decision-making regarding technological risks and risk management in areas such as nuclear power, hazardous waste disposal, and pollution control. Risk perception and cognitive biases; risk analysis and decision analysis; political issues in risk management; regulatory mechanisms; and risk communication. Selected case studies. Prereq: Stat 311 or Math 431 or Soc 360, IE 516, & Grad st; or cons inst
Typically Offered: Occasionally

SOC 710 Interaction Analysis: Talk as Social Organization Credits: 3
The study spoken English as a site for social organization. Theoretical foundations and methodological practices for conversation analysis will be explored using videotaped data from English. Content includes current critical trends in analyzing interaction as well as cross-cultural and cross-linguistic perspectives. Prereq: Graduate standing
Typically Offered: Fall

SOC 724 Intermediate Political Sociology Credits: 3
Critical examination of theories and research in political sociology. Topics include: power and interests, state-formation, social movements, class and political behavior, revolutions, ideology, and states and social policy. Prereq: Grad st
Typically Offered: Occasionally

SOC 730 Intermediate Social Psychology: The Individual and Society Credits: 3
Major social psychological theories and research that focus on the individual in social context. Topics include: perspectives on socialization, the self, social perception and attribution, attitudes, language and nonverbal communication, and attraction and relationships. Prereq: Grad st
Typically Offered: Occasionally
SOC 731 Intermediate Social Psychology: Group and Collective Processes Credits: 3
Major social psychological theories and research that focus on interpersonal relations and group processes. Topics include: social interaction (influence, self-presentation, altruism, aggression), groups (cohesion, conformity, leadership, problem-solving, decision making), intergroup relations (conflict, stereotypes), n-person games (dilemmas, coalition formation). Prereq: Grad st
Typically Offered: Occasionally

SOC 735 Ethnomethodology & Conversation Analysis Credits: 3
This course is concerned with the analysis of everyday, local practices for assembling coherent and stable social environments. The focus on everyday practices derives from both ethnomethodological and conversation analytic literatures and investigations. Instruction will involve both didactic or illustrative presentations and hands-on work with interactional data from a variety of social settings, whether informal telephone calls, or more formal work or organizational settings. Prereq: Graduate standing
Typically Offered: Fall, Spring

SOC 748 Environmental Sociology Credits: 3
Interaction between societies and their environments. Includes human ecology, environmental attitudes and individual actions, the social organization of environmental protection and exploitation and the effects of science, technology, and development. Prereq: Grad st
Typically Offered: Occasionally

SOC 749 Social Policy and Management of National Parks and Protected Areas Credits: 3
Explores the relationship of social policy to the formation and management of U.S. National Parks in the past, present and future. Implications of social policy for park systems and preserves throughout the world are addressed. Prereq: Grad st or cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SOC 750 Research Methods in Sociology Credits: 3
Application of scientific methods to the analysis of social phenomena; methodological orientations in sociology; types of research procedure: nature of sociological variables; lectures and lab. Prereq: Grad st, Soc 357 and 362 or equiv
Typically Offered: Occasionally

SOC 751 Survey Methods for Social Research Credits: 3
Theoretical and practical issues involved in the design of surveys and their components. Students apply knowledge of survey research techniques to a specific and complete research project. Prereq: Grad st and Soc 361 or equiv
Typically Offered: Occasionally

SOC 752 Measurement and Questionnaires for Survey Research Credits: 3
Analysis and presentation of survey results through contingency table analysis. Techniques for assessing the quality of data produced by survey methods. Practical application of course material to a specific research problem through research reports and other exercises involving data analysis on a topic of the student's choice. Prereq: Soc 751 or permission of inst
Typically Offered: Occasionally

SOC 753 Comparative and Historical Methods in Sociology Credits: 3
Students learn about comparative strategies and historical methods through methodological readings, exercises, and evaluations of exemplary analyses in which investigators of organizational structures, institutional relationships, political conflicts, and cultural patterns bring theory and historical-comparative evidence to bear on one another. Prereq: Soc 357 or 358/359 or undergrad methods sequence or consent of instructor
Typically Offered: Occasionally

SOC 754 Qualitative Research Methods in Sociology Credits: 3
This course teaches how qualitative research can be used to advance sociological theory. Topics include inductive and deductive research designs in qualitative research, conducting and analyzing interviews, content analysis, conducting observations, focus groups and data management in qualitative research. Prereq: Grad st in Soc/C&E Soc or consent of instructor
Typically Offered: Occasionally
SOC 755 Methods of Qualitative Research Credits: 3
Introduces qualitative, or ethnographic, research methods, emphasizing those suitable for educational and other organizational settings. Considers strengths and limitations of qualitative approaches in relation to varied research problems. Explores methodological procedures from entry into the field through writing. Prereq: Cons inst
Typically Offered: Occasionally

SOC 756 Demographic Techniques II Credits: 3
Intermediate to advanced tools used by demographers for studying the behavior of human populations: multiple decrement processes, stable population model, demographic relations in non-stable populations, model age patterns of vital events, indirect estimation methods. Prereq: Soc 674 or consent of instructor
Typically Offered: Occasionally

SOC 773 Intermediate Classical Theory Credits: 3
Intensive and critical examination of the major theoretical traditions involved in sociology's development since the 19th century. Prereq: Grad st
Typically Offered: Occasionally

SOC 797 Introduction to Epidemiology Credits: 3
Lectures and discussions on design, implementation and interpretation of epidemiologic studies; emphasis on methodologic problems in the measurement of disease frequency, natural history and risk factors. Prereq: Grad st or healthcare professional program st or cons inst
Typically Offered: Fall

SOC 804 Interdisciplinary Western European Area Studies Seminar Credits: 3
Prereq: Grad st, cons inst
Typically Offered: Occasionally

SOC 875 Special Topics Credits: 1 - 4
Prereq: Grad st and cons inst
Typically Offered: Fall, Spring

SOC 901 Seminar: Topics in Current Sociology Credits: 2 - 3
Critical review of most recent research in sociology. Prereq: Grad st and cons inst
Typically Offered: Occasionally

SOC 904 Sociological Perspectives on Gender Credits: 3
Advanced topics in the analysis of gender relations in society. Prereq: Grad st
Typically Offered: Occasionally

SOC 908 Seminar-Sociology of Education Credits: 3
Selected topics. Prereq: Grad st or cons inst
Typically Offered: Occasionally

SOC 910 Teaching Sociology Credits: 3
Alternatives in course organization, instructional methods, and grading techniques with emphasis on teaching basic undergraduate courses. Prereq: Cons inst
Typically Offered: Occasionally

SOC 913 Seminar-Social Change Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

SOC 915 Seminar-Sociological Theory Credits: 3
Coordination of current theories and methods of relevance for sociological research. Prereq: Grad st and cons inst
Typically Offered: Occasionally

SOC 918 Seminar in Comparative Sociology of Contemporary Capitalism Credits: 3
Origins and consequences of inter-regime and inter-temporal variation in the institutions of capitalism. The evolution and current trajectory of contemporary capitalism across North America, Europe, and East Asia. Theoretical debates on the dynamics, contradictions and variations of capitalist systems. Background in basic concepts of economic sociology required. Prereq: Soc 651 or 652 or equiv
Typically Offered: Occasionally
SOC 919 Seminar: Topics in Economic Sociology Credits: 3
Explores the frontiers of research in economic sociology, drawing on recently published major work and on
ongoing research by faculty and students. Prereq: Soc 651 & 652, or cons inst
Typically Offered: Occasionally

SOC 922 Seminar-Race and Ethnic Relations Credits: 3
Theoretical, methodological, and current research problems. Prereq: Soc 134 or 646 & cons inst
Typically Offered: Occasionally

SOC 923 Seminar-Social Stratification Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

SOC 924 Seminar-Political Sociology Credits: 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

SOC 925 Seminar: Socio-Economic Change in Underdeveloped Areas Credits: 2 - 3
Social and economic factors relating to stability, growth, and change in the non-Western areas of the
contemporary world. Prereq: Grad st & cons inst
Typically Offered: Occasionally

SOC 929 Seminar: Class Analysis and Historical Change Credits: 3
Selected topics in Marxist theory and research. Prereq: Grad st
Typically Offered: Occasionally

SOC 930 Seminar - Socio-Legal Studies Credits: 1 - 3
A sociological exploration of work in the interdisciplinary "law and society" tradition. Themes include compliance
and resistance, dispute resolution, legal consciousness, legal pluralism, law and politics, the social dynamics of
legal institutions, and the allocative and distributive impact of law. Prereq: Cons inst
Typically Offered: Occasionally

SOC 940 Seminar-Sociology of Economic Change Credits: 3
Theoretical and technical problems in research concerning organizational and socio-psychological aspects of
changes in large scale social systems. Prereq: Grad st & cons inst
Typically Offered: Occasionally

SOC 945 Seminar-Rural Sociology Credits: 3
Theory and research in alternate semesters in rural aspects of population, stratification, social change, and
groups and institutions. Prereq: Grad st and cons inst
Typically Offered: Occasionally

SOC 948 Seminar: Environmental Sociology Credits: 3
Examines topics such as theories of environment and society, the treadmill of production, environmental
movements, political ecology, environmental justice, consumption, ecological modernization, sustainability,
environmental risk, and the sociology of environmental science. Prereq: Cons inst
Typically Offered: Occasionally

SOC 952 Seminar-Mathematical and Statistical Applications in Sociology Credits: 3
Selected topics in measurement and model construction in social research. Prereq: Grad st & cons inst
Typically Offered: Occasionally

SOC 955 Seminar-Qualitative Methodology Credits: 3
An intensive, practice-oriented exploration of one qualitative research method such as participant-observation,
interviewing, narrative analysis, oral history or ethnography. Treatment of the method includes: logics of
inquiry, analysis of data obtained through the method, and uses of the method. Prereq: Grad st; soc, educ, or
related soc sci background & cons inst
Typically Offered: Occasionally
SOC 960 Seminar-Current Methodological Issues in Social Psychology  Credits: 3
Alternative research designs and processes, measurement, and analytical techniques in social psychology; experience in developing and utilizing research plans and techniques.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally

SOC 961 Seminar-Advanced Social Psychology Credits: 3
A selected research or theoretical area. Topic varies.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally

SOC 965 Seminar-Recent Developments in Social Psychology Credits: 3
Current literature, emphasis on recent journal articles.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally

SOC 971 Seminar-Topics in Demography and Ecology Credits: 3
Content varies.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally

SOC 977 Seminar-Human Ecology Credits: 3
Review of ecological theory and research; critical assessment of the ecological complex (population, organization, environment, and technology); problems of measurement.  Prereq:  Grad st and cons inst
Typically Offered: Occasionally

SOC 979 Seminar in Urban History Credits: 3
Causes and consequences of urbanization, stressing social and economic aspects of major population movements, with particular attention to the United States.  Prereq:  Graduate standing & consent of instructor
Typically Offered: Occasionally

SOC 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq:  Grad st & cons inst
Typically Offered: Occasionally

SOC 983 Research: Economic Sociology and Comparative Political Economy Credits: 1 - 3
Presentation and discussion of on-going research by graduate students and faculty in the area of comparative political economy and economic sociology.  Prereq:  Grad st
Typically Offered: Occasionally

SOC 984 Research: Sociology of Gender Trainees Credits: 1 - 3
A weekly seminar for sociology graduate students interested in gender-related research, focusing on presentations of student and faculty research projects and discussion of current debates within the sociology of gender.  Prereq:  Grad st
L&S Level: Advanced  Typically Offered: Occasionally

SOC 985 Research: Community and Environmental Sociology Credits: 1 - 3
Critical analysis of recent theoretical and methodological issues through presentations of research in progress by faculty, graduate students, and visiting scholars.  Prereq:  Grad st & cons inst
Typically Offered: Fall, Spring

SOC 987 Research: Race and Ethnic Studies Credits: 1 - 3
Analysis of recent research and theory, based on reviews of literature and presentations of their own work by faculty, graduate students, and visiting scholars.  Prereq:  Cons inst
Typically Offered: Occasionally

SOC 990 Thesis Credits: 1 - 12
Prereq:  Grad st & written cons major prof
Typically Offered: Occasionally

SOC 991 Research: Social Psychology Trainees Credits: 1 - 3
Critical analysis of recent theoretical developments in social psychology and of research designed by participants.  Prereq:  Cons inst
Typically Offered: Occasionally
SOC 992 Research: Social Organization Trainees Politics, Culture, and Society Credits: 1 - 3
Prereq: Social organization trainee or cons inst
Typically Offered: Occasionally

SOC 993 Research: Sociology of Economic Change Trainees Credits: 1 - 3
Presentations of research in progress concerning social and economic change in developing countries. Prereq: Grad st
Typically Offered: Occasionally

SOC 994 Colloquium in Critical Sociology Credits: 1 - 3
Selected topics in critical sociology taught in intensive units three to four weeks in length. Two to three sessions per week. Prereq: Cons inst
Typically Offered: Occasionally

SOC 995 Research: Methodology Trainees Credits: 1 - 3
Prereq: Method trainee or cons inst
Typically Offered: Occasionally

SOC 997 Research: Demography and Ecology Trainees Credits: 1 - 3
Prereq: Demography & ecology trainee or cons inst
Typically Offered: Occasionally

SOC 999 Reading and Research in Sociology Credits: 1 - 12
Prereq: Grad st & written cons inst
Typically Offered: Occasionally

SPANISH (SPANISH AND PORTUG)

SPANISH 101 First Semester Spanish Credits: 4
All basic language skills: listening comprehension, speaking, reading, and writing. Classes meet five times per week. Prereq: Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Summer

SPANISH 102 Second Semester Spanish Credits: 4
Continuation of 101. Prereq: Spanish 101 or appropriate score on placement exam. Open to Freshmen
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SPANISH 203 Third Semester Spanish Credits: 4
Intermediate level language review, Hispanic readings, culture, and patterns of conversation. Prereq: Spanish 102 or appropriate score on placement exam. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SPANISH 204 Fourth Semester Spanish Credits: 4
Second-semester intermediate level language review, extensive readings in literature, intensive written and oral activities. Prereq: Spanish 203 or appropriate score on placement exam. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SPANISH 206 First Semester Spanish for Spanish Speakers Credits: 4
Prereq: Span lang backgrnd at home (or extensive backgrnd abroad). No formal training in Span necessary, but stdts may have up to 2 yrs of HS Span or cons inst. Open to Fr
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

SPANISH 207 Second Semester Spanish for Spanish Speakers Credits: 4
Prereq: Spanish language background at home (or extensive background abroad) plus Span 206. Stdts may have up to 3 yrs HS Span or equiv of Span 206 or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

SPANISH 223 Introduction to Hispanic Cultures Credits: 3
Introduction to the issues which shape the national cultures and the cultural practices of the Hispanic world. Emphasis on diversity, emergence of new imagined communities, cultural hybridity, and social movements within a historical framework. Prereq: Spanish 226 (or higher language) or con reg. Open to Fr
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
SPANISH 224 Introduction to Hispanic Literatures Credits: 3
An introduction to reading and analyzing literary works, with special emphasis on development of oral and written skills for the discussion of literature. Concentration on methods of analyzing basic literary forms, conventions, genres, and representative short texts in Spanish. Prereq: Spanish 226 (or higher language placement) or con reg. Open to Fr.
L&S Breadth: Literature L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 226 Intermediate Language Practice with Emphasis on Writing and Grammar Credits: 3
Intensive practice in reading, writing, and grammar. May be taken concurrently with Spanish 223 or 224. Prereq: Spanish 204 or appropriate score on placement exam.
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 260 Latin America: An Introduction Credits: 3 - 4
Latin American culture and society from an interdisciplinary perspective; historical developments from pre-Columbian times to the present; political movements; economic problems; social change; ecology in tropical Latin America; legal systems; literature and the arts; cultural contrasts involving the US and Latin America; land reform; labor movements; capitalism, socialism, imperialism; mass media.
L&S Breadth: Social Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Spring

SPANISH 299 Directed Study Credits: 1 - 3
Prereq: Open to Fr. Graded on a lettered basis; requires cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 311 Advanced Language Practice Credits: 3
Advanced language practice, including intensive writing and work in pertinent areas of grammar and stylistics. Prereq: Cons inst or Spanish 226
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 319 Topics in Spanish Language Practice Credits: 1 - 3
Intensive oral and written practice in major areas of Spanish professional usage. Each offering will focus on an important field in which students tend to apply their language skills (journalism, commerce, medicine, law, social services, etc.). Prereq: Spanish 311
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 320 Spanish Phonetics Credits: 3
Practice course for improvement of pronunciation, and introduction to transcription and phonetic and phonemic analysis. Prereq: Spanish 226 or consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 321 The Structure of Modern Spanish Credits: 3
This course will guide students to a deeper understanding of the structure and usage of modern Spanish through an examination of linguistic phenomena found throughout the Spanish-speaking world. Students will analyze authentic speech and texts of varied genres (newspaper articles, literature, advertisements, blogs, etc.) both to understand the conventions of modern Spanish structure and usage, and to investigate how grammatical structure may be manipulated by Spanish speakers (including themselves) to accomplish particular communicative goals. Prereq: Spanish 226 or consent of instructor. Open to freshmen
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 322 Survey of Early Hispanic Literature Credits: 3
Selected readings, discussions, and literary history of Spain and Spanish America through 1700. Prereq: Spanish 226 (or higher lang placement), Spanish 223, 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 323 Advanced Language Practice with Emphasis on Expository Writing Credits: 3
Analysis of important questions of syntax, style, and idiomatic Spanish, with emphasis on expository writing. Prereq: Grad st or Spanish 311 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SPANISH 324 Survey of Modern Spanish Literature Credits: 3
Readings, discussions, literary history. Eighteenth to twentieth centuries. Prereq: Spanish 226, 223, 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
SPANISH 325 Advanced Conversation Credits: 3  
Prereq: Spanish 226  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 326 Survey of Spanish American Literature Credits: 3  
Introduction to the study of Spanish American literature; reading, discussions, literary history. Eighteenth to twentieth centuries. Prereq: Spanish 226, 223, 224  
L&S Breadth: Literature  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 327 Introduction to Spanish Linguistics Credits: 3  
Introduction to the linguistic analysis of Spanish, including morphology, syntax, dialectology, history of the language, language acquisition, and sociolinguistic variation. Prereq: Spanish 320. Not open to grad stdts  
L&S Breadth: Humanities  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 329 Spanish for Business Credits: 3  
Spanish lexicon and linguistic style for management, banking, accounting, capital investment, personnel and office systems, production of goods and services, marketing, finance, and import/export; includes translation and interpretive activities. Prereq: Spanish 311 or cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 331 Spanish Applied Linguistics Credits: 3  
Provides an overview of second language acquisition theories and processes as they pertain to Spanish second language learners and characterizes the linguistic challenge that specific Spanish structures pose for English-speakers in particular. Prereq: Spanish 311  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

SPANISH 339 Spanish Business Area Studies Credits: 3  
Spanish business language, culture and practice within Spanish-speaking economic markets. Prereq: Spanish 329 or Spanish 311 with cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally

SPANISH 361 Spanish Civilization Credits: 3  
Cultural evolution from medieval period through twentieth century; conducted in Spanish; illustrated lectures. Prereq: Spanish 223 & 224  
L&S Breadth: Humanities  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

SPANISH 363 Spanish American Civilization Credits: 3  
Cultural evolution of Spanish America from pre-Hispanic days through the present. Conducted in Spanish. Illustrated lectures and discussion. Prereq: Spanish 223 & 224  
L&S Breadth: Humanities  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

SPANISH 414 Literatura de la Edad Media Castellana (ss. XII-XV) Credits: 3  
The study of a particular author, work, topic, or literary genre of the Middle Ages and/or Early Renaissance (through 15th century): Poema de mio Cid, mester de juglaria, Libro de buen amor, mester de clerecia, El conde Lucanor, La Celestina, etc. Prereq: SPANISH 223 and 224. Graduate students may not enroll  
L&S Breadth: Literature  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 417 Literatura del Siglo de Oro Credits: 3 - 4  
A monograph on a particular author, work, or literary genre of the Golden Age: Cervantes, Lope de Vega, La Celestina, the picaresque novel, etc. For undergraduates only. Prereq: Spanish 223 & 224  
L&S Breadth: Literature  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 429 Introduction to the Romance Languages Credits: 3  
Introduction to structural similarities and differences apparent in major Romance languages (French, Italian, Portuguese, Spanish) and to their historical developments, with reference to basic linguistic features of each language: phonology, morphology, syntax, and lexicon. Does not count towards French major. Prereq: Span 226 or Portug 226 or French 228 or Ital 311, or cons inst  
L&S Breadth: Humanities  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

SPANISH 435 Cervantes Credits: 3  
Development of Cervantes as a craftsman and thinker; linguistic and philosophical commentaries on Don Quixote and significant major works. Prereq: Spanish 223 & 224  
L&S Breadth: Literature  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Occasionally
SPANISH 446 Topics in Spanish Linguistics Credits: 3
Advanced descriptive, historical, or applied topics in Spanish linguistics. Prereq: Spanish 320
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SPANISH 451 Literature of the Eighteenth and Nineteenth Centuries Credits: 3
Historical survey of the literature of the eighteenth and nineteenth centuries. Major authors and representative works in all genres covering Neo-Classicism, Romanticism, Realism, and Naturalism. Important currents in intellectual history. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

SPANISH 453 Literature of the Twentieth Century Credits: 3
Historical survey of the literature of the Twentieth Century. Major authors and representative works in all genres beginning with the Generation of 1898 to the present. Important currents in intellectual history. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 459 Mexico in the Chicano and Chicana Literary Imagination Credits: 3
Focuses on analyzing the representations of Mexico in the literary works of Chicano and Chicana writers throughout the twentieth century, and the function such representations play in their construction of identity, subjectivity, and community. This course will be offered in Spanish. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 460 Literatura Hispanoamericana Credits: 3
A monograph on a particular author, work or literary current of Latin America: Modernismo, the novel of protest, the Latin American theater, etc. For undergraduates only. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 461 The Spanish American Short Story Credits: 3
Development of the short story throughout Spanish America from its origins in the 19th century to the present. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 462 Spanish American Theater and Drama Credits: 3
Major dramatic writers in Spanish America from Sor Juana Ines de la Cruz to contemporary practitioners of avant-garde theater. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SPANISH 463 The Spanish American Novel Credits: 3
Development of the novel throughout Spanish America from its origins in the 19th century to the new narrative of recent decades. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SPANISH 464 Spanish American Poetry and Essay Credits: 3
Readings in the work of major Spanish American poets and essayists within a historical framework. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SPANISH 465 Literature and Film in Spanish America Credits: 3
Films and literary works from Spanish America. The interaction of literature and cinema. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 466 Topics in Spanish American Literature Credits: 1
Intensive study of an important author or theme in Spanish American literature. Content will vary with each offering. Prereq: Spanish 223 & 224
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 468 Topics in Hispanic Culture Credits: 3
This course is designed for an in-depth study of important cultural-historical issues concerning the Hispanic world. Prereq: Spanish 223 & 224; prev crse in Span or Span Amer culture/civ recommended
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
SPANISH 469 Topics in Hispanic Cultures in the U.S. Credits: 3
Focuses on the cultural evolution of Chicanos, Puerto Rican or Cuban-Americans in relation to their countries of origin. Topics vary. Prereq: Spanish 223 & 224. Prior course in civilization
Ethnic Studies: Yes L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 470 Undergraduate Seminars in Hispanic Literature/Culture/Linguistics Credits: 3
This seminar is designed for the most advanced undergraduates in Spanish. Students must be able to work within the seminar format, studying independently and contributing fully in the weekly meetings. Prereq: Sr st. Smrs in lit &/or culture: Sr st. Smrs in linguistics: Span 320 or cons inst L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 471 Topics in Hispanic Literature Credits: 3
A consideration of Hispanic literary trends especially in their transoceanic or global dimensions. Prereq: Spanish 223 & 224 L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 472 Hispanic Screen Studies Credits: 3
An introduction to audiovisual media in the Spanish-speaking world. Semester topics may include cinema, television, video and video gaming. Students will learn basic technical vocabulary, analytical concepts and industrial history for specific media and consider theoretical issues relating to the integration of those media in various local cultures. Special attention will be paid to the economic, technological, social and political conditions that have determined the differential development of the various screen arts in Spanish-speaking countries. Prereq: SPANISH 223, 224 and 311 L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 473 Study Abroad in Spanish Language Practice Credits: 1 - 4
Treatment of a topic in Spanish language in a course carried with a UW-Madison resident study abroad program that has no equivalent on this campus. Prereq: Enrollment in a UW-Madison resident study abroad program L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 474 Study Abroad in Spanish Linguistics Credits: 1 - 4
Treatment of a topic in Spanish linguistics in a course carried with a UW-Madison resident study abroad program that has no equivalent on this campus. Prereq: Enrollment in a UW-Madison resident study abroad program L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 475 Study Abroad in Hispanic Literatures Credits: 1 - 4
Treatment of a topic in Hispanic literatures in a course carried with a UW-Madison resident study abroad program that has no equivalent on this campus. Prereq: Enrollment in a UW-Madison resident study abroad program L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 476 Study Abroad in Hispanic Cultures Credits: 1 - 4
Treatment of a topic in Hispanic cultures in a course carried with a UW-Madison resident study abroad program that has no equivalent on this campus. Prereq: Enrollment in a UW-Madison resident study abroad program L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 501 Survey of Spanish American Literature from the Discovery to Modernismo Credits: 3
Introduction to the major trends and genres of Spanish American literature, from the Discovery to Modernismo. Prereq: Grad st L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 502 Survey of Spanish American Literature from Modernismo to the Present Credits: 3
Introduction to the major trends and genres of Spanish American literature, from Modernismo to the present. Prereq: Grad st L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 503 Survey of Medieval Literature Credits: 3
Readings of texts, lexicography, and history. Prereq: Grad st L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

SPANISH 504 Survey of Medieval Literature Credits: 3
Continuation of 503. Prereq: Grad st L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
SPANISH 505 Advanced Survey of Spanish Literature Credits: 3
Prereq: Grad st or cons inst  
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 506 Advanced Survey of Spanish Literature Credits: 3
Prereq: Grad st or cons inst  
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 541 Old Spanish Credits: 3
Historical Spanish phonology, morphology, and syntax, with application to analysis of medieval Spanish texts. Some attention to paleographic and editorial problems. Prereq: Grad st  
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 543 Spanish Phonology Credits: 3
Introduction to synchronic and diachronic Spanish phonology. Prereq: Grad st or cons inst  
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

SPANISH 544 Contemporary Issues in Applied Spanish Linguistics Credits: 3
Linguistic concepts, theories and research methodologies as they are applied to Spanish teaching methodology, bilingualism, and L2 acquisition of Spanish. Prereq: Graduate standing  
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

SPANISH 545 College Teaching of Spanish Credits: 2
Introduction to Spanish teaching methodology; classroom procedures, lesson planning, drilling techniques, preparation and evaluation of testing devices, current trends in language teaching, audio-visual aids, review of key grammatical concepts, etc. Prereq: Teaching assistant status in Spanish or Portug or cons inst. Does not count towards requirements in College of L&S  
Typically Offered: Fall

SPANISH 548 Structure of the Spanish Language: Morphology and Syntax Credits: 3
Basic concepts of morphosyntactic theory applied to Spanish. Prereq: Grad st or cons inst  
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 564 Theory and Practice of Hispanic Theatre Credits: 4
We will study contemporary Hispanic theatre through both the literary text and performance. This class will be divided into two parts: 1) analysis and discussion of texts; 2) performance and staging of plays. The end project is a full-length live performance in Spanish. Prereq: Spanish 223 & 224  
L&S Breadth: Literature L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 627 Historia de Teoria Literaria: de Platon Al Siglo XVIII Credits: 3
Historical survey of major currents of literary theory in Europe, beginning with Plato and ending with Neoclassicism. Prereq: Grad st  
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 628 Historia de Teoria Literaria: Siglos XIX-XX Credits: 3
Modern literary theories with special attention to Hispanic literatures. Prereq: Grad st  
L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 630 Topics in Hispanic Linguistics Credits: 3
Prereq: Grad st or cons inst  
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst  
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

SPANISH 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst  
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally
SPANISH 691 First Semester Senior Thesis Credits: 3
First semester independent study with the goal to do the preliminary research to write a senior thesis in Spanish. Prereq: Senior Standing. Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SPANISH 692 Second Semester Senior Thesis Credits: 3
Second semester independent study with the goal to complete a senior thesis in Spanish. Prereq: Senior standing, consent of instructor, Spanish 691
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SPANISH 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st; graded on a lettered basis; requires cons of chair and instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

SPANISH 701 Textual Criticism Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 712 Special Topics: Advanced Placement Seminar Credits: 1 - 3
Planning course outlines and materials designed to help students prepare for the AP exam in Spanish language and/or literature. Consideration of the format of the AP exam(s) and of the particular objectives in the four language skills. Prereq: HS teacher currently teaching or expecting to teach adv crses for stdts who may take AP exam in Spanish lang and/or lit
Typically Offered: Occasionally

SPANISH 715 Topics in Hispanic Cultural Studies Credits: 3
A course for graduate students focusing on the study of culture in the context of Hispanic studies. Prereq: Grad st or cons inst
Typically Offered: Occasionally

SPANISH 716 Topics in Spanish American Literature Credits: 3
An advanced topics course focusing on major issues in Spanish American literary and/or intellectual history. Prereq: Grad st
Typically Offered: Occasionally

SPANISH 718 Topics in Medieval Spanish Literature Credits: 3
An advanced topics course focusing on themes, particular authors, individual works, or literary genres in medieval Spanish literature. Prereq: Grad st
Typically Offered: Occasionally

SPANISH 801 Seminar-Spanish American Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 802 Seminar-Spanish American Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 813 Seminar-Historical Spanish Syntax and Lexicography Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 815 Seminar in Language: Modern Spanish Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 817 Romance Philology Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 830 Seminar: The Spanish Grammatical Tradition Credits: 3
Prereq: Graduate or professional standing
Typically Offered: Occasionally
SPANISH 831 Seminar: Hispanic Dialectology Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 841 Seminar: Libro de Buen Amor, Celestina, Corbacho Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 842 Seminar-Medieval Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 850 Seminar in Golden Age Drama Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 851 Seminar in Golden Age Prose: Cervantes Don Quijote Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 852 Seminar in Golden Age Prose Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 853 Seminar in Golden Age Poetry Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 861 Seminar-Modern Spanish Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 862 Seminar-Modern Spanish Literature Credits: 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 882 Seminar in Hispanic Culture Credits: 3
Seminar focusing on literary, cultural and/or theoretical topics relevant to Spanish and/or Spanish-American culture. Taught in English. Prereq: Grad st or cons inst
Typically Offered: Spring

SPANISH 899 Independent Reading Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

SPANISH 982 Interdepartmental Seminar in the Latin-American Area Credits: 1 - 3
Prereq: Grad st & cons inst
Typically Offered: Occasionally

SPANISH 990 Thesis Credits: 1 - 12
Credit commensurate with work accomplished. Prereq: Consent of instructor
Typically Offered: Occasionally

STATISTICS

STAT 224 Introductory Statistics for Engineers Credits: 3
Prereq: Math 221. 2nd Sem Fr St. Sttdts may receive degree cr for no more than one of the following: Stat 201, 224, and 301
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring
STAT 301 Introduction to Statistical Methods Credits: 3
Distributions, measures of central tendency, dispersion and shape, the normal distribution; experiments to compare means, standard errors, confidence intervals; effects of departure from assumption; method of least squares, regression, correlation, assumptions and limitations; basic ideas of experimental design. Prereq: Satisfied Quantitative Reasoning (QR) A requirement. Not open to students who have completed STAT 201, 224, 324, or 371
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

STAT 302 Accelerated Introduction to Statistical Methods Credits: 3
Graphical and numerical exploration of data; standard errors; distributions for statistical models including binomial, Poisson, normal; estimation; hypothesis testing; randomization tests; basic principles of experimental design; regression; ANOVA; categorical data analysis; goodness of fit; application. (intended for students wishing to take additional statistics courses). Prereq: Satisfied Quantitative Reasoning (QR) A requirement and Math 221 or equivalent
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

STAT 309 Introduction to Probability and Mathematical Statistics I Credits: 3
Probability and combinatorial methods, discrete and continuous, univariate and multivariate distributions, expected values, moments, normal distribution and derived distributions, estimation. Prereq: Math 234 or concurrent registration. Students may not enroll if they have completed Stat 311 or Math/Stat 431
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall

STAT 310 Introduction to Probability and Mathematical Statistics II Credits: 3
This course in mathematical statistical inference aims at providing an understanding of likelihood's central role to statistical inference, using the language of mathematical statistics to analyze statistical procedures, and using the computer as a tool for understanding statistics. Specific topics include: samples and populations, estimation, hypothesis testing, and theoretical properties of statistical inference. Prereq: Math/Stat 309 or Stat 311 or Math/Stat 431 (with Math/Stat 309 recommended) AND an introductory statistics course (Stat 224 or Stat 301 or Stat 302 or Stat 324 or Stat 371 or Econ 310)
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Spring

STAT 311 Introduction to Theory and Methods of Mathematical Statistics I Credits: 3
Elements of probability, important discrete distributions, acceptance sampling by attributes, sample characteristics, probability distributions and population characteristics, the normal distribution, acceptance sampling plans based on sample means and variances, sampling from the normal, the central limit theorem, point and interval estimation. Prereq: Math 234 or concurrent registration. Students may not enroll if they have completed Math/Stat 309 or Math/Stat 431
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

STAT 312 Introduction to Theory and Methods of Mathematical Statistics II Credits: 3
Unbiased estimation, maximum likelihood estimation, confidence intervals, tests of hypotheses, Neyman-Pearson lemma, likelihood ratio test, regression, analysis of variance with applications. Prereq: Math/Stat 309 or Stat 311 or Math/Stat 431 (with Stat 311 recommended)
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

STAT 324 Introductory Applied Statistics for Engineers Credits: 3
Descriptive statistics, probability concepts and distributions, random variables. Hypothesis tests and confidence intervals for one- and two-sample problems. Linear regression, model checking, and inference. Analysis of variance and basic ideas in experimental design. Prereq: MATH 222 or 276. Not open to students who have completed STAT 224 or 371
L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

STAT 327 Learning a Statistical Language Credits: 1
This modular course is aimed at providing students with an understanding of commonly used statistical languages. (Two such languages commonly used in our Department -- and others -- are R and SAS.) Modules will be offered at the introductory, intermediate and advanced levels. (Also, students may not receive credit twice for the same language at the same level.) Prereq: Any introductory stat course (224, 301, 302, 324, 371) for all modules; additional prerequisites will vary by topic
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring
STAT 333 Applied Regression Analysis Credits: 3
An introduction to regression with emphasis on the practical aspects. Topics include: straight-line model, role of assumptions, residual analysis, transformations, multiple regression (with some use of matrix notation), multicollinearity, subset selection, and a brief introduction to mixed models. Prereq: An introductory statistics course (Stat 224 or Stat 301 or Stat 302 or Stat 324 or Stat 371) and Stat 327 (Stat 327 may be taken concurrently)
General Education: QR-B L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

STAT 349 Introduction to Time Series Credits: 3
Autocorrelation; stationarity and non-stationarity; heteroscedasticity; dynamic models; auto-regressive and moving average models; identification and fitting; forecasting; seasonal adjustment; applications for financial time series, social sciences and environmental studies. Prereq: Stat 333
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

STAT 351 Introductory Nonparametric Statistics Credits: 3
Distribution free statistical procedures or methods valid under nonrestrictive assumptions: basic tools; counting methods; order statistics, ranks, empirical distribution functions; distribution free tests and associated interval and point estimators; sign test; signed rank tests; rank tests; Mann Whitney Wilcoxon procedures; Kolmogorov Smirnov tests; permutation methods; kernel density estimation; kernel and spline regression estimation; computer techniques and programs; discussion and comparison with parametric methods. Prereq: Statistics 333
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Occasionally

STAT 360 Topics in Statistics Study Abroad Credits: 1 - 3
Credit is awarded for students having completed an advanced statistics course in a study abroad program for which there is no direct equivalence to the statistics department course offerings. The study abroad course must be pre-approved by the statistics department. Prereq: None
L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer

STAT 371 Introductory Applied Statistics for the Life Sciences Credits: 3
The course will provide students in the life sciences with an introduction to modern statistical practice. Topics include: exploratory data analysis, probability and random variables; one-sample testing and confidence intervals, role of assumptions, sample size determination, two-sample inference; basic ideas in experimental design, analysis of variance, linear regression, goodness-of fit; biological applications. Prereq: MATH 112 and 113, 114, or 171. Not open to students who have completed STAT 224 or 324
General Education: QR-B L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

STAT 411 An Introduction to Sample Survey Theory and Methods Credits: 3
An introduction to the methods used to design sample surveys and analyze the results. Topics covered include: basic tools, simple random sampling, ratio and regression estimation, stratification, systematic sampling, cluster (area) sampling, two-stage sampling, unequal probability sampling, non-sampling errors, and missing data. For illustration and clarification, examples are drawn from diverse areas of application. Prereq: Stat 333
L&S Breadth: Natural Science L&S Level: Intermediate L&S Credit: Counts for LAS credit
Typically Offered: Fall

STAT 421 Applied Categorical Data Analysis Credits: 3
Analysis of multidimensional contingency tables, Poisson regression, and logistic regression, with emphasis on practical applications. Use of computer programs for such analyses. Model selection, testing goodness of fit, estimation of parameters, measures of association and methods for detecting sources of significance. Prereq: Stat 333
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Spring

STAT 424 Statistical Experimental Design Credits: 3
This course provides a systematic introduction to statistical design and analysis of experiments. Topics include: principles of randomization, blocking and replication, randomized blocking designs, Latin square designs, full factorial and fractional factorial designs and response surface methodology. Substantial focus will be devoted to engineering applications. Prereq: An introductory statistics course (Stat 224 or Stat 301 or Stat 302 or Stat 324 or Stat 371)
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring, Summer
STAT 431 Introduction to the Theory of Probability Credits: 3
Probability in discrete sample spaces; combinatorial analysis; conditional probabilities, stochastic independence, Laplace limit theorem, Poisson distribution, laws of large numbers, random variables, central limit theorem, applications. Prereq: Math 223 or 234
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

STAT 441 Introduction to Biostatistics for Pharmacy Credits: 3
Introduction to statistical methods used in pharmaceutical and related biomedical applications. Topics include exploratory data analysis of random samples, theory of probability and population reference distributions, statistical inference and hypothesis testing, regression methods, and survival analysis techniques. Prereq: Admission to School of Pharmacy, Pharm.D. program
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

STAT 456 Applied Multivariate Analysis Credits: 3
Theory and applications of multivariate statistical methods. Basic concepts and statistical reasoning which underlie the techniques of multivariate analysis. Ideas rather than derivations stressed although basic models discussed to give the student some feeling for their adequacy in particular situations. Acquaintance with and use of existing computer programs in the multivariate analysis area. Prereq: Stat 333 and a course in linear algebra (Math 340 or Math 341 or Math 375)
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

STAT 461 Financial Statistics Credits: 3
Stochastic models and statistical methodologies are widely employed in modern finance. The models and their inferences are very important for academic research and financial practices. This course will cover the financial stochastic models and their statistical inferences with applications to volatility analysis and risk management. It will introduce discrete models such as binomial trees and GARCH and stochastic volatility models as well as simple continuous models like the Black-Scholes model. The main focus of the course will be on statistical inference, data analysis and risk management regarding these models. Prereq: Stat 333 or Econ 410 and one of Stat 309 or Stat 311 or Math 431
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

STAT 471 Introduction to Computational Statistics Credits: 3
Classical statistical procedures arise where closed-form mathematical expressions are available for various inference summaries (e.g. linear regression; analysis of variance). A major emphasis of modern statistics is the development of inference principles in cases where both more complex data structures are involved and where more elaborate computations are required. Topics from numerical linear algebra, optimization, Monte Carlo (including Markov chain Monte Carlo), and graph theory are developed, especially as they relate to statistical inference (e.g., bootstrapping, permutation, Bayesian inference, EM algorithm, multivariate analysis). Prereq: Stat 310 and Stat 333
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

STAT 475 Introduction to Combinatorics Credits: 3
L&S Breadth: Natural Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

STAT 479 Special Topics in Statistics Credits: 1 - 3
This course will be used for curricular offerings for topics of interest to undergraduates. It will be offered as the need arises. Prereq: Consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

STAT 511 Introduction to Biostatistical Methods for Public Health Credits: 3
Provides breadth in biostatistical methods for public health practitioners. Topics will include research design, data collection methods and database management, statistical computing and programming, descriptive statistics in tables and graphics, introductory statistical methods, and survey sampling. Prereq: Declared in the Master of Public Health (MPH) program. Not open to students who have taken BMI/STAT 541 or BMI/POP HLTH 551
Typically Offered: Fall
STAT 525 Linear Programming Methods Credits: 3
Real linear algebra over polyhedral cones; theorems of the alternative for matrices. Formulation of linear programs. Duality theory and solvability. The simplex method and related methods for efficient computer solution. Perturbation and sensitivity analysis. Applications and extensions, such as game theory, linear economic models, and quadratic programming. Prereq: Math 443 or 320 or 340 or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

STAT 541 Introduction to Biostatistics Credits: 3
Course designed for the biomedical researcher. Topics include: descriptive statistics, hypothesis testing, estimation, confidence intervals, t-tests, chi-squared tests, analysis of variance, linear regression, correlation, nonparametric tests, survival analysis and odds ratio. Biomedical applications used for each topic. Prereq: Graduate standing. Students may not enroll if they have completed BMI 511 or BMI 551.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

STAT 542 Introduction to Clinical Trials I Credits: 3
Intended for biomedical researchers interested in the design and analysis of clinical trials. Topics include definition of hypotheses, measures of effectiveness, sample size, randomization, data collection and monitoring, and issues in statistical analysis. Statistics graduate students should take Stat 641. Prereq: Stat 541 or equiv or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

STAT 546 Practicum in Clinical Trial Data Analysis and Interpretation Credits: 3
Provides practice in analysis and interpretation of existing datasets from national and international clinical trials in a variety of diseases. Students will develop a research question, review clinical protocols, and analyze available data to prepare a report. Prereq: Stat 541 or 572 & Stat 542 or 641
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

STAT 571 Statistical Methods for Bioscience I Credits: 4
Descriptive statistics, distributions, one- and two-sample normal inference, power, one-way ANOVA, simple linear regression, categorical data, non-parametric methods; underlying assumptions and diagnostic work. Prereq: College algebra: Grad st or cons inst
General Education: QR-B  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

STAT 572 Statistical Methods for Bioscience II Credits: 4
Continuation of Forestry 571. Polynomial regression, multiple regression, two-way ANOVA with and without interaction, split-plot design, subsampling, analysis of covariance, elementary sampling, introduction to bioassay. Prereq: Stats/Forestry/Hort 571
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

STAT 575 Statistical Methods for Spatial Data Credits: 3
Detecting and quantifying spatial patterns and modeling in the presence of such patterns. Spatial Point Patterns: testing nonrandomness, simulating and characterizing patterns. Lattice Data: spatial autocorrelation and regression. Geostatistics: variograms, ordinary and universal kriging, inference, assessing assumptions, and extensions. Prereq: Stat 333 & 424; or Stat/Forest/Hort 572; or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

STAT 601 Statistical Methods I Credits: 4
Together with Stat 602, this course is to provide graduate students in statistics and related quantitative fields with a thorough grounding in modern statistical methods. The specific learning outcomes for the course are to understand data collection in context (how/why data were collected, key questions under study); explore data by effective graphical and numerical summaries; understand probability concepts and models as tools for studying random phenomena and for statistical inference; analyze data using appropriate, modern statistical models, methods, and software; understand the statistical concepts underlying methods; develop the ability to interpret results and critically evaluate the
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
STAT 602 Statistical Methods II Credits: 4
Together with Stat 601, this course is to provide graduate students in statistics and related quantitative fields with a thorough grounding in modern statistical methods. The specific learning outcomes for the course are to understand data collection in context (how/why data were collected, key questions under study); explore data by effective graphical and numerical summaries; understand probability concepts and models as tools for studying random phenomena and for statistical inference; analyze data using appropriate, modern statistical models, methods, and software; understand the statistical concepts underlying methods; develop the ability to interpret results and critically evaluate the
Typically Offered: Spring

STAT 609 Mathematical Statistics I Credits: 3
Review of probability, random variables and vectors and their distributions, moments and inequalities, generating functions, transformations of random variables, sampling and distribution theory, convergence concepts for sequences of random variables, laws of large numbers, central limit and other limit theorems. Prereq: Stat 309 or 431, Math 340, Math 521, or equiv or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

STAT 610 Introduction to Statistical Inference Credits: 4
Conditioning, distribution theory, approximation to distributions, modes of convergence, limit theorems, statistical models, parameter estimation, comparision of estimators, confidence sets, theory of hypothesis tests, introduction to Bayesian inference and nonparametric estimation. Prereq: Stat 309 or Stat 431, Math 521, Math 340 or equiv or cons inst
L&S Breadth: Physical Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

STAT 627 Professional Skills in Data Science Credits: 1 - 3
This topics course is aimed at providing statistics graduate students with an understanding of and experience with important aspects of professional development in statistics, including skills with internet tools, sophisticated use of statistical languages (such as R) and other emerging topics. Prereq: Graduate student in Statistics
Typically Offered: Fall, Spring, Summer

STAT 628 Data Science Practicum Credits: 1 - 3
This course is aimed at providing graduate students with an understanding of and experience with turning statistics concepts into practice through data science practicums inspired by realistic projects. Students will combine theory and methods expertise with communications skills to translate from a vaguely stated project description and complex data set into a concisely summarized analysis, including both written and graphical interpretation that can be used by decision makers in an organization. Prereq: Graduate student in Statistics
Typically Offered: Fall, Spring, Summer

STAT 632 Introduction to Stochastic Processes Credits: 3
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

STAT 641 Statistical Methods for Clinical Trials Credits: 3
Statistical issues in the design of clinical trials, basic survival analysis, data collection and sequential monitoring. Intended for statistics graduate students; those with medical backgrounds should take Stat 542. Prereq: Math/Stat 310 or equiv or cons inst
L&S Breadth: Natural Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

STAT 642 Statistical Methods for Epidemiology Credits: 3
Methods for analysis of case-control, cross sectional, and cohort studies. Covers epidemiologic study design, measures of association, rates, classical contingency table methods, and logistic and Poisson regression. Prereq: Statistics 310 or equivalent or consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

STAT 679 Special Topics in Statistics Credits: 1 - 3
Special topics in statistics at the master's level. Subject matter varies. Prereq: Consent of instructor
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
STAT 681 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

STAT 682 Senior Honors Thesis Credits: 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

STAT 698 Directed Study Credits: 1 - 6
Prereq: Graded on a Cr/N basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

STAT 699 Directed Study Credits: 1 - 6
Prereq: Graded on a lettered basis; requires cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

STAT 701 Applied Time Series Analysis, Forecasting and Control I Credits: 3
Theory and application of discrete time series models illustrated with forecasting problems. Principles of iterative model building. Representation of dynamic relations by difference equations. Autoregressive integrated Moving Average models. Identification, fitting, diagnostic checking of models. Seasonal model application to forecasting in business, economics, ecology, and engineering used at each stage, which the student analyzes using computer programs which have been specially written and extensively tested. Prereq: Stat 310 or equiv
Typically Offered: Occasionally

STAT 709 Mathematical Statistics Credits: 4
Introduction to measure theoretic probability; derivation and transformation of probability distributions; generating functions and characteristic functions; conditional expectation, sufficiency, and unbiased estimation; methods of large sample theory including laws of large numbers and central limit theorems; order statistics. Prereq: Cons inst or one yr adv calculus and Math, Stat 431, Math, Stat 310
Typically Offered: Occasionally

STAT 710 Mathematical Statistics Credits: 4
Estimation, efficiency, Neyman-Pearson theory of hypothesis testing, confidence regions, decision theory, analysis of variance, and distribution of quadratic forms. Prereq: Stat, Math 709
Typically Offered: Occasionally

STAT 726 Nonlinear Optimization I Credits: 3
Theory and algorithms for nonlinear optimization, focusing on unconstrained optimization. Line-search and trust-region methods; quasi-Newton methods; conjugate-gradient and limited-memory methods for large-scale problems; derivative-free optimization; algorithms for least-squares problems and nonlinear equations; gradient projection algorithms for bound-constrained problems; and simple penalty methods for nonlinearly constrained optimization. Prereq: Familiarity with basic mathematical analysis and either Math 443 or 320; or cons inst
Typically Offered: Occasionally

STAT 732 Large Sample Theory of Statistical Inference Credits: 3
Typically Offered: Occasionally

STAT 733 Theory of Probability I Credits: 3
An introduction to measure theoretic probability and stochastic processes. Topics include foundations, independence, zero-one laws, laws of large numbers, convergence in distribution, characteristic functions, central limit theorems, random walks, conditional expectations. Prereq: Math 629, 721, or concurrent registration in 721, or consent of instructor
Typically Offered: Occasionally

STAT 734 Theory of Probability II Credits: 3
Continuation of 831. Possible topics include martingales, weak convergence of measures, introduction to Brownian motion. Prereq: Consent of instructor
Typically Offered: Occasionally
STAT 741 Survival Analysis Theory and Methods Credits: 3
Theory and practice of analytic methods for censored survival data, including nonparametric and parametric methods, the proportional hazards regression model, and a review of current topics in survival analysis. Prereq: Stat 610 or 710 or equivalent or consent of instructor
Typically Offered: Occasionally

STAT 760 Multivariate Analysis I Credits: 3
Multivariate normal distribution, estimation of mean and covariance matrix; Wishart distribution; distribution of partial and multiple correlation coefficients; Hotelling's $T^2$, principal components. Prereq: Cons inst or Stat 710
Typically Offered: Occasionally

STAT 761 Decision Trees for Multivariate Analysis Credits: 3
Tree construction, including finding splits, tree-pruning and error estimation. Categorical predictor variables, missing or censored data, prior class-probabilities, and unequal misclassification costs. Selection bias. Comparison with other statistics and machine-learning methods. Extensions to piecewise linear and non-least squares regression models. Prereq: Cons inst
Typically Offered: Occasionally

STAT 768 Statistical Methods for Medical Image Analysis Credits: 3
Introduce key statistical methods and concepts for analyzing various medical images. Analyze publicly available and student/instructor supplied imaging data using the most up-to-date methods and tools. Aimed at graduate student and researchers with strong quantitative background. Prereq: Two semesters of statistics courses (STAT 309-310), or the consent of instructor. The course is self-contained. The knowledge of calculus and linear algebra is needed
Typically Offered: Occasionally

STAT 771 Statistical Computing Credits: 3
The design of statistical software including special techniques for probability distributions, methods of simulation of random processes, numerical methods for linear models and multivariate analysis, and methods for nonlinear models. Prereq: Stat 333 or equiv or cons inst
Typically Offered: Occasionally

STAT 775 Introduction to Bayesian Decision and Control I Credits: 3
Common sampling models in business and economic problems, information from data, likelihood function of parameters, choices of models, Bayes' Theorem, subjective basis for probability, sequential nature of Bayesian inference, prior and posterior distributions of parameters in binomial, poisson, exponential and normal populations, comparison of two normal distributions, predictive distributions, decision theory, utility, risk aversion, extensive form of analysis, two-action problems, point estimation, best population problems, economics of sampling. Prereq: Stat 309, 313, or 311 or equiv
Typically Offered: Occasionally

STAT 803 Experimental Design I Credits: 3
Summary of matrix algebra required, theory of estimable functions, incomplete blocks, balanced incomplete block designs, partially balanced incomplete block designs. Prereq: Stats 310 or cons inst
Typically Offered: Occasionally

STAT 809 Non Parametric Statistics Credits: 3
Statistical procedures valid under unrestrictive assumptions; sign test; confidence intervals; efficiency comparisons; signed rank procedures; Walsh sums; point estimators; two sample rank tests; zeros, ties, and other problems of discrete data; order statistics; Winsorized and truncated point estimators and connection with gross error models; permutation procedures; combinatorial problems, and computer applications. Prereq: Stat 710 or cons inst
Typically Offered: Occasionally

STAT 811 Sample Survey Theory and Method Credits: 3
Simple random sampling; systematic sampling; probability sampling; stratified sampling; subsampling with units of equal and unequal size; double sampling; multi-stage and multi-phase sampling; ratio and regression estimates; model-based and model-assisted approaches; variance estimation; non-response. Prereq: Stats 610 or 710 or equiv
Typically Offered: Occasionally
STAT 833 Topics in the Theory of Probability Credits: 3
Topics in probability and stochastic processes. Prereq: Cons inst
Typically Offered: Occasionally

STAT 834 Empirical Processes and Semiparametric Inference Credits: 1 - 3
Empirical process methods in statistics; semiparametric models; stochastic convergence in metric spaces;
Glivenko-Cantelli and Donsker theorems; entropy calculations; bootstrapped empirical processes; functional delta
method; Z-estimators; M-estimators; rates of convergence; semiparametric efficiency; semiparametric estimating
equations; nonparametric maximum likelihood. Prereq: Math/Stat 710 or Math/Stat 832 or cons inst
Typically Offered: Occasionally

STAT 840 Statistical Model Building and Learning Credits: 3
Theory of reproducing kernel Hilbert spaces in statistical model building; bounded linear functionals and
reprenter theory; smoothing splines; ANOVA spines; degrees of freedom for signal and the bias-variance
tradeoff; Bayesian confidence intervals; model selection. Prereq: Stat 710 or cons inst
Typically Offered: Occasionally

STAT 841 Nonparametric Statistics and Machine Learning Methods Credits: 3
Statistical function estimation and classification; reproducing kernel machines, support vector machines; high
dimensional model selection and estimation; Bayesian, empirical Bayesian interpretation of nonparametric
learning methods; log density ANOVA and graphical models; tree ensemble methods including bagging, boosting,
and random forest. Prereq: Stat 840
Typically Offered: Occasionally

STAT 849 Theory and Application of Regression and Analysis of Variance I Credits: 3
Theory and applications of the general linear model; graphical methods; simultaneous inference; regression
diagnostics; analysis of variance of fixed, random and mixed effects models; ANCOVA: violations of assumptions.
Prereq: Stat 310, 312 or 314
Typically Offered: Occasionally

STAT 850 Theory and Application of Regression and Analysis of Variance II Credits: 3
Theory and applications of the general linear model; graphical methods; simultaneous inference; regression
diagnostics; analysis of variance of fixed, random and mixed effects models; ANCOVA: violations of assumptions.
Prereq: Stat 849
Typically Offered: Occasionally

STAT 851 Generalized Linear Models Credits: 3
Methods for developing, fitting and checking models beyond the classical linear model framework. Binary, ordinal
and categorical models will be examined, as well as the non-Gaussian continuous case and more advanced
topics. Prereq: Stat 850 or con reg or cons inst
L&S Level: Advanced Typically Offered: Occasionally

STAT 860 Estimation of Functions from Data Credits: 3
Statistical and approximation theoretic methods of estimating functions and values of functionals from
experimental data; experimental design and data analysis problems that arise as problems in approximation
theory; convergence theorems; ill-posed inverse problems; Banach and Hilbert space penalty functionals.
Prereq: Stat 710 or cons inst
Typically Offered: Occasionally

STAT 877 Statistical Methods for Molecular Biology Credits: 3
Develop statistical problems in gene mapping, high throughputic data analysis, phylogenetics and sequence
analysis. Introduce ideas of key methods using published data. Statisticians learn statistical basis for research
methodology. Collaboration among students and with biologists is encouraged through projects. Prereq: Stat
309-310 or 609-610 or 709-710 or equiv, or cons inst. Genetics 466 or equiv strongly recommended
Typically Offered: Every Other Spring

STAT 990 Research Credits: 1 - 12
Content varies. Prereq: Consent of instructor
Typically Offered: Occasionally

STAT 992 Seminar Credits: 1 - 3
Content varies. Prereq: Cons inst
Typically Offered: Occasionally
STAT 998 Statistical Consulting  Credits: 3
Consulting apprenticeship. Prereq: 9 cr in statistics and cons inst
Typically Offered: Occasionally

URBAN AND REGIONAL PLANNING

URB R PL  305 Introduction to the City  Credits: 3 - 4
Analysis of the distributions of cities, their functions, character and relationships with their surrounding regions, and the areal patterns within cities; the spatial variation of population, economic activity, and land uses. Prereq: So st; qualified Fr admitted with cons inst
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

URB R PL  306 The Real Estate Process  Credits: 3
Introductory survey course. Decision-making processes for the manufacture, marketing, management and financing of real estate space. Survey of institutional context, economics of urbanization, historical pattern and structure of city growth, and public policy issues regarding urban environment and business management. Prereq: So, Jr, or Sr st; Econ 101
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

URB R PL  420 Urban and Regional Economics  Credits: 3
Nature and structure of urban economies; location of economic activity; economic analysis in an urban framework; principles of urban economic development, housing, transportation, poverty and unemployment and municipal finance. Forecasting of economic activity using census and socioeconomic data. Prereq: Econ 101
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

URB R PL  449 Government and Natural Resources  Credits: 3 - 4
Problems of public policy and administration for development and use of natural resources. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

URB R PL  463 Evolution of American Planning  Credits: 3
The nature and cultural significance of contemporary methods for the systematic formulation of public policies for community, metropolitan, and state development through comprehensive planning. Historic roots, recent trends and new directions in American planning concepts, institutions and professional specializations. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

URB R PL  503 Researching the City: Qualitative Strategies  Credits: 3
Explores, and applies, qualitative methods in the field of urban geography. An introduction to debates around the analysis and interpretation of qualitative data is provided, grounded in concrete urban research. Participation in a three-day field course is required. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

URB R PL  505 Urban Spatial Patterns and Theories  Credits: 3
Various urban empirical regularities and theories which explain them. Prereq: Geog 305 or consent of instructor
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

URB R PL  506 Historical Geography of European Urbanization  Credits: 3
Historical geography of urban development in Europe from classical times to the post-Word War II era, with emphasis on changes in built environment, public space and infrastructure, land use, and urban systems. Prereq: Jr st
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

URB R PL  520 Community Economic Analysis  Credits: 3
Economic theory (location and growth) applicable to community economic development; the role of private and public sector in local economic development, and techniques for economic analysis of community. Prereq: Econ 301 or equiv
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
URB R PL  544 Introduction to Survey Research  Credits: 3
Theory and practice of survey research; planning, sampling, questionnaire construction, interviewing, content analysis, machine tabulation, analysis of data; two hours lecture; two hours lab or field work.  Prereq:  Junior standing
L&S Breadth:  Social Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

URB R PL  561 Energy Markets  Credits: 3
Energy resources are an essential element of the world's business, political, technical and environmental landscape. Analytic tools provided by the discipline of economics expands our understanding of this critical issue. Energy supply markets reviewed include both fossil fuels and renewable resources. Energy demand sectors include residential, commercial, industrial and transportation. Electricity represents an intermediate energy market. The interactions among these markets participants indicate how scarce resources are allocated among competing needs in the world economy.  Prereq:  ECON 101, ECON 111, or AAE 215
L&S Breadth:  Social Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

URB R PL  590 Contemporary Topics in Urban and Regional Planning  Credits: 1 - 3
Examination of special issues or problems in urban and regional planning and development, such as mineral development in Wisconsin or fringe development in Madison. Topic and faculty vary.  Prereq:  Open to Srs and Grads. Cons inst
L&S Level:  Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

URB R PL  601 Site Planning  Credits: 3
Survey of site planning theory and methods; standards for municipal review of site plans and related design proposals. Topics include architecture, vehicle circulation and parking, pedestrian circulation, stormwater management, landscaping, outdoor lighting, and signage. Intended for students without design backgrounds.  Prereq:  Sr st & cons inst or Grad st
L&S Breadth:  Humanities or Soc Sci  L&S Level:  Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

URB R PL  611 Urban Design: Theory and Practice  Credits: 3
Focusing on three basic components of the built environment ¿ buildings, transportation systems, and open spaces ¿ this course addresses the forces that shape land use and transportation patterns, the effects of urban form on public health, safety, and welfare, and ways that communities can make their built environments more livable and environmentally sustainable.  Prereq:  Senior standing or graduate status
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

URB R PL  617 Community Development  Credits: 3
Social, cultural and personality factors influencing community development, with reference to developing countries as well as contemporary rural communities; consideration of theoretical and operational issues.  Prereq:  Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth:  Social Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

URB R PL  622 Applications of Geographic Information Systems in Planning  Credits: 3
Explores planning-related GIS data, applications, analytical tools, and issues.  Prereq:  Intro GIS course or experience using GIS is a pre-requisite. Grad st or cons inst. Priority given to Urb R Pl stdts
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall

URB R PL  641 Housing Economics and Policy  Credits: 3
The economic principles underlying the dynamics of the housing market; filtering, neighborhood decline and abandonment gentrification, tenure choice, mortgage choice, prepayment, mobility, mortgage default, submarket identification, racial discrimination and segregation. Examination of governmental programs affecting the housing market and their objectives and impacts; public and subsidized housing, zoning and land use regulation, rent and price controls, property and income tax policy.  Prereq:  Real Est 420 or con reg or cons inst
L&S Breadth:  Social Science  L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Occasionally

URB R PL  644 International Development and Gender  Credits: 3
In addition to reviewing gender-within-development theory and practice, this course examines specific gender issues including social status and roles, productive and reproductive work, access to resources, identity and citizenship, empowerment, and intersection of race, class, and ethnicity with gender.  Prereq:  Grad or Sr st
L&S Level:  Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring
URB R PL 645 Modern American Communities Credits: 3
Relevance of the concept of community to American society. Review of several basic theories of community and analysis of the nature of community in the broader political and economic context. Prereq: Intro Soc course (Soc 140, 181, 210, or 211)
L&S Breadth: Social Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

URB R PL 668 Green Politics: Global Experience, American Prospects Credits: 3
An examination of the writings and activities of green parties and movements around the globe in order to assess the potential of an explicit, radical environmental politics for the United States. Prereq: Jr st or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

URB R PL 671 Energy Economics Credits: 3
The method, application, and limitations of traditional economic approaches to the study of energy problems. Topics include microeconomic foundations of energy demand and supply; optimal pricing and allocation of energy resources; energy market structure, conduct, and performance; macro linkages of energy and the economy; and the economics of regulatory and other public policy approaches to the social control of energy. Prereq: (Senior standing and ECON 101 or AAE 215) or graduate standing
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

URB R PL 699 Directed Study Credits: 1 - 6
Prereq: Jr or Sr st & written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

URB R PL 711 Planning for Food Systems and Marketplaces Credits: 3
Planning for and improving the quality of US metropolitan markets and food systems. Topics include public markets, community food security, urban agriculture, and the public health impact of food systems. Prereq: None
Typically Offered: Occasionally

URB R PL 717 Water Resources Management Practicum Planning Seminar I Credits: 1
This is the first of two seminars used for planning the activities of the Summer Session Water Resources Management Practicum (ENVIR ST 719). Prereq: Consent of instructor
Typically Offered: Fall

URB R PL 718 Water Resources Management Practicum Planning Seminar II Credits: 2
This seminar is used for planning the field work, analysis and reporting of the Summer Session Water Resources Management Practicum (ENVIR ST 719). Prereq: Adv Grad standing or consent of instructor
Typically Offered: Spring

URB R PL 719 Water Resources Management Summer Practicum Credits: 4
Interdisciplinary team of students and staff working with agency personnel, citizen groups, and/or private sector representatives on the analysis of a contemporary, problem-oriented water resource issue. Physical, biological, economic and social aspects of the issue analyzed. Comprehensive written report results, practicum's findings and management recommendations. Prereq: Envir St/Civ Engr/Urb R Pl 718 or consent of instructor
Typically Offered: Summer

URB R PL 720 Urban Economics Credits: 3
Analysis of spatial relationships in the urban economy, including urban land, labor and housing markets; urban transport; city governance and finance; and regional models. Historical and applied focus. Interdisciplinary approach emphasizing economics, geography, and planning. Prereq: Econ 301 or equiv or cons inst
Typically Offered: Occasionally

URB R PL 721 Methods of Planning Analysis Credits: 3
Research methods and statistics used in analyzing planning problems: conceptualization, design, and implementation of planning research; statistical methods for analyzing data including review of inferential statistics, analysis of variance, correlation, and multiple regression; use of computer; review of sources of planning data. Prereq: Grad st
Typically Offered: Occasionally
URB R PL 731 Introduction to Regional Planning Credits: 3
Broad coverage of regional planning–basic concepts, history, influences of the political, economic, and social environment, techniques of analysis and substantive tasks and problems in preparing regional plans. Prereq: Grad st and cons inst
Typically Offered: Occasionally

URB R PL 734 Regional Economic Problem Analysis Credits: 3
Examination of major theories of regional economic development, with special emphasis upon the evolution and amelioration of regional economic problems. Selected techniques of regional analysis, including economic base multipliers, input/output models, and shift-share analysis are used in the context of setting regional development goals. Prereq: Grad st
Typically Offered: Occasionally

URB R PL 741 Introduction to Planning Credits: 3
Evolution of contemporary urban and regional planning thought. Major conceptual dilemmas in theory and practice. Emerging trends in planning, e.g., forecasting and futurism. Prereq: Grad st. Stdts in Urb R Pl only
Typically Offered: Occasionally

URB R PL 742 International Development Planning Theory Credits: 3
Provides students with a historical and theoretical foundation for critical thinking about international development planning. Prereq: Grad st or cons inst
Typically Offered: Occasionally

URB R PL 751 Introduction to Financial Planning Credits: 3
State and local financial planning with emphasis on the functional importance of expenditure; special problems in financing city and metropolitan governments; intergovernmental fiscal relations and the use of various budgetary techniques as integral parts of the planning process. Prereq: Grad st or cons inst
Typically Offered: Occasionally

URB R PL 761 Central City Planning: Issues and Approaches Credits: 3
Social, economic, environmental, and fiscal trends affecting larger, older American cities, critical policy issues confronting central city decision-makers, and major programmatic responses to these issues; the role of planning in response to these trends and issues. Prereq: Grad st
Typically Offered: Occasionally

URB R PL 781 Planning Thought and Practice Credits: 3
Intensive analysis of selected planning cases highlighting important issues that planners deal with in practice. The case studies are prefaced by sessions which places them in the broader framework of planning history, decision making process models and planner role models. A second section deals with subnational planning and regional development issues in developing countries. Prereq: Grad st and cons inst
Typically Offered: Occasionally

URB R PL 809 Introduction to Energy Analysis and Policy Credits: 3
Interdisciplinary seminar for the Energy Analysis and Policy Curriculum. Strategy and policy problems in energy policy, both national and international. Prereq: Grad st & admission to Energy Anal and Policy curric or cons inst
Typically Offered: Fall

URB R PL 810 Energy Analysis Seminar Credits: 1 - 3
Interdisciplinary seminar for the Energy Analysis and Policy Curriculum. Quantitative energy content and energy flows as an aid to problem analysis and policy formulation. Prereq: Grad st & admission to Energy Anal and Policy Curric or cons inst
Typically Offered: Spring

URB R PL 812 Strategies for Planning Effectiveness Credits: 3
Methods by which planning effectiveness can be increased, and constraints imposed on planning effectiveness can be overcome. Theoretical models for greater planning effectiveness, strategies for increasing the influence of planning agencies, implications of effective planning for education, values, ethics, and techniques. Experienced planners discuss effectiveness techniques. Prereq: Grad st or cons inst
Typically Offered: Occasionally
URB R PL 814 Environmental and Alternative Dispute Resolution in Planning Credits: 3
Principles, methods, and techniques of alternative dispute resolution; characteristics and dynamics of environmental and public policy conflicts; environmental and public policy dispute resolution theory; dispute systems design; applications to planning practice. Prereq: Grad st
Typically Offered: Occasionally

URB R PL 821 Resources Policy Issues: Regional and National Credits: 2 - 3
Resource policy issues frequently faced by local and state governments and the federal government. Emphasis: (1) techniques for analysis of resource issues; (2) methods of collating knowledge from natural and social science disciplines which can make meaningful contributions to resolution of resource issues; (3) identification and analysis of strategic points of decision making in the legislative and executive branches of government; and (4) the application of planning techniques for accomplishing resource goals. Prereq: Cons inst
Typically Offered: Occasionally

URB R PL 830 Land Use Controls Credits: 3
Limitations imposed upon the use of privately owned land by the court-made law of nuisance, by private covenant, and by public action; master plan, official map, subdivision regulation, zoning, and urban redevelopment. Prereq: Graduate or professional standing
Typically Offered: Occasionally

URB R PL 833 Planning and the Legal System Credits: 3
An examination for students of planning of how the legal system influences community planning. Overview of the institutional framework for planning and the legal authority for tools used to create healthy and sustainable communities. Prereq: Grad st and cons inst
Typically Offered: Spring

URB R PL 839 Land Use and Communication Systems Planning Credits: 3
Application of systems analysis to the planning of land use and transportation systems; system modeling; environmental impacts; value measurement; decision-making strategies. Prereq: Grad st & cons inst
Typically Offered: Occasionally

URB R PL 841 Urban Functions, Spatial Organization and Environmental Form Credits: 2 - 3
Influence of social, economic, and political systems, technological innovations, and architectural concepts on the spatial organization and environmental form of cities and urban areas; the adaptability of urban physical structure to developmental change; planned, conceptual organization and form versus unplanned and ecological organization and form. Prereq: Urb R Pl 741 & 912 or cons inst
Typically Offered: Occasionally

URB R PL 843 Land Use Policy and Planning Credits: 3
Critical evaluation and analysis of land use policies and programs in relation to comprehensive planning and growth management issues in the U.S. The role of legislative and judicial processes and emerging public land use social values and philosophies in the development, regulation, and effectuation of innovative land use policies. Alternative land policy and growth guidance systems of select European countries. Prereq: Grad st or cons inst
Typically Offered: Occasionally

URB R PL 844 Housing and Public Policy Credits: 3
Issues and methodological problems encountered in the production, financial, and consumption sectors of housing program design; comparisons with European and Third World country housing and public policy programs. Prereq: Grad st or cons inst
Typically Offered: Occasionally

URB R PL 845 Advanced Topics in Public Finance Credits: 1 - 4
Advanced public finance problems and literature, research; subject changes each semester; may be repeated. Modules. Prereq: Econ 713 and 714
Typically Offered: Occasionally

URB R PL 865 Water Resources Institutions and Policies Credits: 3
Governmental processes and policies for water resources management; major substantive problems and issues; political processes of decision making; problems of governmental organization and intergovernmental arrangements. Prereq: Grad st
Typically Offered: Occasionally
URB R PL 874 Policy-Making Process Credits: 3  
An intensive study of policy-making processes involved in the formulation of public policies. Prereq: Grad st  
Typically Offered: Occasionally

URB R PL 875 Theory and Practice of Educational Planning Credits: 3  
Theory, research and practice in advanced program planning and evaluation involving elementary, secondary and higher and post-secondary education. Prereq: ELPA 702 or cons inst for ELPA majors. Grad st for other fields  
Typically Offered: Occasionally

URB R PL 878 Public Management Credits: 3  
The role of administration in American government; problems of organization, bureaucracy and control; public policy as the output of the administrative process. Prereq: Grad standing  
Typically Offered: Occasionally

URB R PL 890 Federal Budget and Tax Policy and Administration Credits: 3  
Focuses on national budget and tax policy and administration, and the parallel processes at the state and local levels. Included are discussions of: decision-making theories; budget and tax policy; and analysis of normative and empirical criteria and analytical techniques for assessing alternative policy proposals. Prereq: Grad st or cons inst  
Typically Offered: Occasionally

URB R PL 912 Planning Workshop Credits: 3  
Selected problems in planning to emphasize the interdisciplinary character of planning practice and to give opportunity to apply socioeconomic analysis, physical planning, and implementation techniques. Prereq: Grad st and cons inst  
Typically Offered: Occasionally

URB R PL 917 Public Participation for Planning and Policy Making Credits: 3  
Examines public participation for planning and policymaking in both urban and natural environments; considers different types of participation from agency consultation to negotiation; designing, conducting, and evaluating citizen participation are major features. Prereq: Graduate or professional standing  
Typically Offered: Occasionally

URB R PL 920 Regional Design Workshop Credits: 2 - 3  
Development and application of a systematic approach to analysis and design at macro- and micro-scales within a regional context. Prereq: Grad st & cons inst  
Typically Offered: Occasionally

URB R PL 923 Seminar-Land Problems: Institutional Development Credits: 2 - 3  
Land tenure and utilization research and policy problems. Prereq: Grad st  
Typically Offered: Occasionally

URB R PL 924 Seminar-Political Sociology Credits: 3  
Prereq: Grad st & cons inst  
Typically Offered: Occasionally

URB R PL 932 Seminar-Research Review and Criticism Credits: 1 - 3  
Group consideration of thesis or equivalent projects during their preparation; individual reports on successive stages of work. Prereq: Grad st  
Typically Offered: Occasionally

URB R PL 945 Seminar in Land Use and Community Development Issues Credits: 3  
The social, economic, and political setting of urban blight and the current measures, including urban renewal and model cities programs, to cope with the condition. Attention to social change, concept of neighborhood, and cross-cultural perspectives to renewal and community development. Prereq: Urb R Pl 844 or cons inst  
Typically Offered: Occasionally

URB R PL 955 Practical Research Design and Methods of Empirical Inquiry Credits: 3  
Provides a practical introduction to basic concepts of research question formulation, research designs and alternative methods of inquiry, implications for internal validity of the research and generalizability of the findings, operational definitions and measurement validity, reliability, utility and precision. Prereq: Graduate or professional standing  
Typically Offered: Occasionally
URB R PL 969 Seminar-Trends and Issues in Public Planning Credits: 3
Critical review of recent and current thought on the nature and role of planning in governmental and quasi-governmental agencies with particular attention to the adverse critics of planning and the issues they raise about the policy formulation process in public affairs. Prereq: Cons inst
Typically Offered: Occasionally

URB R PL 978 Seminar-Urban Land Economics PhD Credits: 2
Continuation of Urb R Pl/Real Est 977. Prereq: Two sems of Grad work. PhD or 2nd yr masters candidates
Typically Offered: Occasionally

URB R PL 979 Seminar in Urban History Credits: 3
Causes and consequences of urbanization, stressing social and economic aspects of major population movements, with particular attention to the United States. Prereq: Graduate standing & consent of instructor
Typically Offered: Occasionally

URB R PL 990 Research and Thesis Credits: 1 - 5
Prereq: Grad st
Typically Offered: Occasionally

URB R PL 999 Independent Work Credits: 1 - 3
Prereq: Grad st
Typically Offered: Occasionally

ZOOLOGY

ZOOLOGY 101 Animal Biology Credits: 3
General biological principles. Topics include: evolution, ecology, animal behavior, cell structure and function, genetics and molecular genetics and the physiology of a variety of organ systems emphasizing function in humans. Prereq: Not recommended for students with credit already in Zoology/Biology/Botany 151 or 152
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ZOOLOGY 102 Animal Biology Laboratory Credits: 2
General concepts of animal biology at an introductory level. The general body plans and strategies used to accomplish the basic tasks of staying alive of 9 major animal groups are studied using preserved and live animals. The diversity within each group of animals is studied by integrating the body plans with the lifestyle and ecology of the animals. The evolutionary relationships between the animals is a major part of the course. Dissections of earthworm, freshwater mussel, squid, sea star, and rat also aid the study of these general principles. Prereq: Not recommended for students with credit already in Zoology/Biology/Botany 151/152
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ZOOLOGY 151 Introductory Biology Credits: 5
First semester of a two semester course designed for majors in biological sciences. Topics include: cell structure and function, cellular metabolism (enzymes, respiration, photosynthesis), information flow (DNA, RNA, protein), principles of genetics and selected topics in Animal Physiology. HS chem or concurrent registration in college chemistry strongly advised. Prereq: Not recommended for students with credit already in Zoo/Bio 101, 102 or Botany/Bio 130
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

ZOOLOGY 152 Introductory Biology Credits: 5
Second semester of a two semester course designed for majors in biological sciences. Continuation of 151. Topics include: selected topics in plant physiology, a survey of the five major kingdoms of organisms, speciation and evolutionary theory, and ecology at multiple levels of the biological hierarchy. Prereq: Biology/Botany/Zoology 151. Not recommended for students with credit already in Zoology/Biology 101,102 or Botany/Biology 130
General Education: COM B L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring
ZOOLOGY 153 Introductory Biology Credits: 3
One-semester course designed for engineering majors including chemical and biological engineering. Meets with Zoology/Biology/Botany 151. Engineering students who need a biology course with a lab component should enroll in Zoology/biology/Botany 151. Topics include: cell structure and function, cellular metabolism (enzymes, respiration, photosynthesis), information flow (DNA, RNA, protein), principles of genetics, and selected topics in Animal Physiology.
Concurrent registration in college chemistry strongly advised. Not recommended for students with credit already in Zoo/Bio 101, 102 or Botany/Bio 130. Prereq: Enrollment in an undergrad engineering degree program L&S Breadth: Biological Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

ZOOLOGY 199 Directed Study Credits: 1 - 3
Recommended for Fr and So. Prereq: Written cons inst. Open to Fr  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

ZOOLOGY 260 Introductory Ecology Credits: 3
For nonbiology students: the relationships of organisms and the environment. Population dynamics and community organization, human-environment relationships, action programs. Prereq: Open to Freshmen. Does not count toward Botany or Zoology major  
L&S Breadth: Biological Science  
L&S Level: Elementary  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

ZOOLOGY 299 Directed Studies in Zoology Credits: 1 - 3
Intermediate level directed study/independent research. The purpose of this course to introduce undergraduate students to research questions and, facilitate their learning in the field of biology by providing them with guidance and mentorship in a research environment. Prereq: Need consent of instructor  
L&S Breadth: Biological Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring, Summer

ZOOLOGY 300 Invertebrate Biology and Evolution Credits: 3
Provides an introduction to invertebrate diversity and biology, with emphasis on anatomy, development, and systematic relationships of the main animal phyla. Phyla are discussed in the context of major themes in animal evolution, such as the origin of tissue layers, the diversity of feeding mechanisms, the evolution of terrestrialization, patterns of diversification through time, and the conservation of transcriptional circuitry. The aim of this course is to understand animal diversity from a phylogenetic and developmental perspective. Prereq: BIOLOGY/ZOOLOGY 101 and 102; or BIOLOGY/BOTANY/ZOOLOGY151 and 152; or BIOCORE 381  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

ZOOLOGY 301 Invertebrate Biology and Evolution Lab Credits: 2
Provides an introduction to invertebrate diversity and biology, with emphasis on anatomy, development, and systematic relationships of the main animal phyla, in parallel with the Invertebrate Biology and Evolution lecture course. Phyla are discussed in the context of major themes in animal evolution, such as the origin of tissue layers, the diversity of feeding mechanisms, the evolution of terrestrialization, patterns of diversification through time, and the conservation of transcriptional circuitry. The aim of this course is to understand animal diversity from a phylogenetic and developmental perspective. Prereq: Concurrent enrollment in ZOOLOGY 300  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

ZOOLOGY 302 Introduction to Entomology Credits: 4
Principles including morphology and classification; a general collection of insects required of each student. Prereq: An elem course in zoology  
L&S Breadth: Biological Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

ZOOLOGY 303 Aquatic Invertebrate Biology Credits: 3
This course focuses on the form, function, development, basic physiology and ecology of the freshwater and marine invertebrates in the context of their environment. As a lecture and lab combination students will get a chance to study live invertebrate specimens, their habitat selection, adaptation and diversity. Prereq: Zoology 101 and Zoology 102 OR Biology 151 and/or Biology 152  
L&S Breadth: Biological Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Summer

ZOOLOGY 315 Limnology-Conservation of Aquatic Resources Credits: 2
General limnology. Physical, chemical and biological characteristics and processes of lakes. Environmental problems and rehabilitation of lakes. Prereq: Intro course in biol; intro course in chem recommended  
L&S Breadth: Biological Science  
L&S Level: Intermediate  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Summer
ZOOLOGY 316 Laboratory for Limnology-Conservation of Aquatic Resources Credits: 2 - 3
Biological, physical, and chemical characteristics and their interrelationships in Wisconsin lakes and streams.
Prereq: Zool 315 or con reg
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

ZOOLOGY 335 Human/Animal Relationships: Biological and Philosophical Issues Credits: 3
An interdisciplinary approach to our complex and often contradictory relationships with non-human animals, including information about the nature, needs and behavior of human and non-human animals in relation to our personal and professional interactions with them. Prereq: So st
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 350 Parasitology Credits: 3
The biology of water-borne, food-borne, soil-borne and vector-borne parasites of animals including humans. Parasites are explored in the context of transmission, associated disease, diagnosis and treatment options, and environmental, cultural and socioeconomic drivers of disease epidemiology. Prereq: BIOLOGY/ZOOLOGY 101 and 102, or BIOLOGY/BOTANY/ZOOLOGY 152 or ZOOLOGY 153, or BIOCORE 381
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 351 Parasitology Laboratory Credits: 2
Optional laboratory component of Zoology/Med Micro/AHABS 350. Emphasis on experiments involving live animal parasites, including: trematodes, tapeworms, gapeworms, hookworm, ascarids, trichina, filaria, trypanosomes, coccidia, and malaria. Prereq: Zoology/MM&I/AHABS 350 or con reg
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 350 Parasitology Laboratory Credits: 2
Optional laboratory component of Zoology/Med Micro/AHABS 350. Emphasis on experiments involving live animal parasites, including: trematodes, tapeworms, gapeworms, hookworm, ascarids, trichina, filaria, trypanosomes, coccidia, and malaria. Prereq: Zoology/MM&I/AHABS 350 or con reg
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 360 Extinction of Species Credits: 3
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Summer

ZOOLOGY 371 Medical Entomology Credits: 3
Arthropods of medical and veterinary importance, how they affect their hosts and transmit diseases. Prereq: Intro course in zool or vet sci
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOLOGY 400 Topics in Biology Credits: 1 - 3
Subject matter, credits and prerequisites vary. Prereq: Varies
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ZOOLOGY 405 Introduction to Museum Studies in the Natural Sciences Credits: 2 - 3
Provides an overview of natural history museums, including history, field collecting, specimen preparation, collection preservation, ethics, education and employment opportunities. At the same time, it introduces students to the natural science museums and library collections located on the UW campus. Prereq: Open to Jr, Sr, Grads, Adv special stdts
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOLOGY 410 Evolutionary Biology Credits: 3
Evolutionary biology, emphasizing how modern scientists study evolution. Topics include: nature and mechanisms of microevolution, macroevolution, adaptation, speciation; systematics and taxonomy; quantitative genetics and measurement of natural selection; phylogenetic analyses of behavior, physiology, morphology, biochemistry; current controversies in evolution. Prereq: An elem course in zool or botany & So st; Genetics/Botany/Zool 160 or 466 recommended
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 425 Behavioral Ecology Credits: 3
Designed to explore how organisms make decisions and how these decisions affect their survival. These decisions are key aspects of an organism’s life, e.g. foraging behavior, mating behavior, anti-predator behavior, and habitat selection. The course approaches these questions with the perspective that understanding the proximal and ultimate basis of behavior requires understanding the ecological and evolutionary context of behavior. Prereq: Intro biology (Zoology/Botany 151 & 152 or Zoology 101 & Botany 130 or Biocore 301 & 302). Evolution, ecology, genetics recommended
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
ZOOGOLOGY 430 Comparative Anatomy of Vertebrates Credits: 5
Basic vertebrate anatomical systems and a consideration of variations, using functional embryological and evolutionary approaches. Lab dissection and study of representative vertebrate material. Two evening practical exams. Prereq: Intro crse in zool & So st
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOGOLOGY 450 Midwestern Ecological Issues: A Case Study Approach Credits: 2
This web course explores how ecological principles can be used to address contemporary environmental issues such as water quality, invasive species, and population growth. Emphasis on midwestern issues, practical approaches, the role of history, and geographic context. Prereq: Intro biology crse, interest in solving problems
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOGOLOGY 459 Ecological Techniques for Field Monitoring Credits: 1 - 2
Field techniques to inventory and census plant and animal species and ecological processes and how to assemble these into useful databases. Emphasis on 'keystone' and invading exotic species that strongly affect community dynamics. Aimed at science teachers interested in participating in a monitoring network. Prereq: A crse in ecology (e.g. Botany 450, 460), interest in monitoring, & cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ZOOGOLOGY 460 General Ecology Credits: 4
Ecology of individual organisms, populations, communities, ecosystems, landscapes, and the biosphere. The interaction of organisms with each other and their physical environment. These relationships are studied, often in quantitative terms, in both field and laboratory settings; lecture and lab. Prereq: Intro course in botany & zoology, or Bot/Zoo 151-152, or Biocore 301 or 333; for biol sci majors only
General Education: QFR-B  L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ZOOGOLOGY 470 Introduction to Animal Development Credits: 3
This course introduces students to the major features and mechanisms of early embryonic development in animals, including (1) the major stages of early development, (2) how form arises in the embryo (morphogenesis), (3) how differences arise between cells in the embryo, and (4) how specific genes control these processes. Prereq: Zool 101 or Zool 151/152
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOGOLOGY 473 Plant-Insect Interactions Credits: 3
Multiple ways in which arthropods exploit plants, plant traits that deter or augment insects, environmental mediation of these interactions, effects on population dynamics, community ecology and co-evolution, and implications to natural resource management, environmental quality, and sustainable development. Prereq: One of the following: Bot/For/Zoo 460, Ent/Pl Path/For 500, Pl Path/Bot 505, Forestry 550, or Entom 342
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOGOLOGY 500 Undergraduate Neurobiology Seminar Credits: 1
Neurobiology seminar for undergraduates. A faculty lead lecture/discussion about a wide range of topics in neurobiology research from molecular neurobiology to integrative systems. Topics discussed by invited UW-Madison faculty researchers in any given semester can include: ion channels and synaptic plasticity, neural development, sensory and cognitive physiology, biological basis of behavioral disorders and cognitive decline. Prereq: Declared in Neurobiology or Biology with the neurobiology option and ZOOLOGY/PSYCH/NTP 523 or concurrent enrollment
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

ZOOGOLOGY 504 Modeling Animal Landscapes Credits: 3 - 5
This course uses computer and GIS-based modeling to explore how climate, topography, vegetation type, and key animal properties all interact to specify from first principles the energetics and activity constraints of animals on any landscape. It links individual, population and community variables at landscape scales. Prereq: Jr st
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOGOLOGY 510 Ecology of Fishes Credits: 3
Interactions of fishes with their physical, chemical, and biotic environment; physiological ecology, community ecology and fisheries sciences. Lake Mendota perch fishery and Shedd Aquarium field trips. Prereq: 1 yr biol & chem & Jr st
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ZOOLOGY 511 Ecology of Fishes Lab Credits: 2
Anatomy and taxonomy of Wisconsin fishes and projects in fish ecology. Prereq: Zool 510 or con reg
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 520 Ornithology Credits: 3
Introduction to bird biology, ecology, and behavior. Topics include the evolutionary origin of birds and flight, anatomy and physiology, functional morphology, migration, communication, reproductive strategies, ecological adaptations and roles, and biogeographical patterns. Prereq: BIOLOGY/ZOOLOGY 101 and 102, BIOLOGY/BOTANY/ZOOLOGY 151 and 152 or BIOCORE 381 and 382
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 521 Birds of Southern Wisconsin Credits: 3
Outdoor and indoor labs/lectures emphasizing identification of southern Wisconsin birds by sight and vocalization. Two required Saturday field trips in Southern Wisconsin. Prereq: BIOLOGY/ZOOLOGY 101 and 102 or BIOLOGY/BOTANY/ZOOLOGY 151 and 152 or BIOCORE 381 AND 382
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 523 Neurobiology Credits: 3
Basic mechanisms in cellular neurophysiology: electrophysiology and chemistry of nerve signals, mechanisms in integration, simple nervous pathways and their behavioral correlates. Prereq: Biocore 323 or Zool 151/152 or Zool 101 plus an additional zool crse & a yr each of chem & physics
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

ZOOLOGY 524 Neurobiology II: An Introduction to the Brain and Behavior Credits: 3
An introduction to studies of the human nervous system covering neuroanatomy of the brain, neuronal coding, sensory and motor systems, biological rhythms, arousal, attention, physiological regulation, reward, aversion, learning and memory. Prereq: Zool 523, equiv crse in physiol, or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 525 Tropical Herpetology Credits: 1
This course introduces students to perhaps the least known but most threatened groups of tropical vertebrates, the amphibians and reptiles ("herps"). The course consists of a series of eight two hours lectures that introduce students to the range of tropical habitats and the amphibians and reptiles to be found there, using the current extinction crisis among these animals as an underlying theme. Prereq: Zoology 101 and Zoology 102 or Biology 152 or equivalent
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 530 Insect Behavior Credits: 3
Comparative behavior of insects. Function and evolution. Prereq: Entom 302 or equiv; Zool 330 or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 535 Ecosystem Analysis Credits: 3
Introduction to current quantitative approaches for analyzing ecosystems. Includes hand-on experience with ecosystem modeling and parameter estimation. Prereq: 1 yr calculus & a majors course in ecology; or Grad st
L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

ZOOLOGY 540 Theoretical Ecology Credits: 3
Introduction to theoretical ecology, including hands-on experience in computer modeling. For students with ecology background; does not require a strong math background. 3-credit option requires project and consent of instructor. Prereq: 1 year calculus, Zoo/Bot 260, Zoo/Bot/For 460 or equiv, & Jr st
L&S Breadth: Biological Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ZOOLOGY 541 Paleobiology Credits: 3
The evolutionary process as interpreted from the fossil record. Topics include: the study of form; tempo and mode of evolution; levels and mechanisms of evolutionary change; extinction in the fossil record; trends and patterns in the history of life; macroevolution. Prereq: Geosci 304 or 540 or course in introductory biology
L&S Breadth: Biological Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

ZOOLOGY 542 Invertebrate Paleontology Credits: 3
The evolutionary history, morphology, and ecology of fossil invertebrates. Labs emphasize fossil identification and recognition of basic morphological features. Prereq: Geosci 107, 110, 204, or a course in introductory biology
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
ZOOLOGY 550 Animal Communication and the Origins of Language Credits: 3
Signals, contexts, and mechanism of social communication in animals. Speech and non-verbal communication in human beings and possible arguments for the evolution of speech and language. Prereq: Psych 449 or 450 or Zoology 531 or 532
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 555 Laboratory in Developmental Biology Credits: 3
Developmental anatomy and laboratory manipulations of representative animal embryos used extensively for analysis of developmental phenomena (sea urchins, amphibia, annelids, molluscs, ascidians, insects, chicks, fish, mice). Prereq: Prev or con reg in either Zoo 440, 470, 625, or Biocore 333, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOLOGY 562 Human Cytogenetics Credits: 2
Fundamental principles of cytogenetics and special problems of human cytogenetics for biology and medical students. Prereq: Genetics/Bot/Zool 160 or 466 or Med Genet 721 or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 565 Principles of Landscape Ecology Credits: 2
Landscape ecology emphasizes the importance of spatial patterns at broad scales. Concepts and applications are emphasized, especially for seniors and graduate students in applied natural resource fields. The course is also a prerequisite for Zoology/Forest Ecology 665, Advanced Landscape Ecology. Lecture format with discussion. Prereq: Botany/Zoology/Forest 460, or Forest 550, a crse in stats, & cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 570 Cell Biology Credits: 3
Comprehensive course on modern aspects of cell biology. Prereq: One yr college biol, one yr chem
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOLOGY 603 Endocrinology Credits: 3 - 4
An introduction to the role that hormones play in a variety of physiological processes and behaviors from a molecular to a systems level. Topics include hormonal involvement in growth, development, homeostasis, reproduction, and behavior, with an emphasis on vertebrate systems. Prereq: Background in biochem & cell-molecular biol recommended, but not required
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOLOGY 604 Computer-based Gene and Disease/Disorder Research Lab Credits: 2
In recent years, a large number of open access biological and biomedical databases have become available for on-line, computer based research. Among these databases are the National Center for Biotechnology Information, Allen Brain Atlas, NIH DAVID, Genemania, ToppClusterPhenopedia, GeneNetwork, GWAS Central, and Broad Institute’s MSigDB. Within these and other sites is a wealth of information regarding genes, gene expression, gene pathways, behavioral characteristics, and disorders or diseases, such as autism, arthritis, bipolar disorder, and schizophrenia. Learning to navigate the various sites to take advantage of the information and push scientific discovery forward is a valuable skill. Prereq: Genetics/Bot/Zool 160 or 466 or Med Genet 721 or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 611 Comparative and Evolutionary Physiology Credits: 3
Course examines general physiological principles by comparing taxa from diverse evolutionary histories and ecological adaptations. Examples include adaptation to environments differing in salinity, temperature, altitude, pressure, or pollution, and examines how nervous and endocrine systems evolved to support the adaptations. Prereq: Elem crse in Botany or Zoology
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 612 Comparative Physiology Laboratory Credits: 2
Recommended for majors. Prereq: Zool 611 or con reg
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ZOOG 616 Lab Course in Neurobiology and Behavior Credits: 4
Students will do three independent experimental modules exploring neurophysiology and behavior, each taking 4-5 weeks. Students will work in groups of 2 or 3 and will learn techniques and then develop their own short investigations into each of three separate areas of neurobiology. There will be continual interaction between students and faculty. Prereq: ZOOG/NTP/PSYCH 523 and NTP/PHYSIO /PSYCH/ZOOG 524 or NTP/PHMCOL-M/PHYSIOL 610 and ANATOMY/NTP/PHMCOL-M/PHYSIOL/PSYCH 611
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOG 619 Biology of Mind Credits: 3
Origins and structures of mind, brain, and consciousness. Transitions from early mammalian through primate to hominid intelligence. Genetics and plasticity in brain development. Modern studies of human brain mechanisms and consciousness. Prereq: Jr st; college level elem crse in biology or psych
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOG 620 Neuroethology Seminar Credits: 2
A group discussion of primary literature articles relevant to the neural basis of behavior with a purpose to understand the neural basis of behavior in animals, to learn to read papers critically and improve discussion leading skills. Prereq: Introductory biology. Background in neuroscience strongly recommended
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOG 624 Molecular Ecology Credits: 3
Basic principles of molecular ecology. Lecture topics include population genetics, molecular phylogenetics, rates and patterns of evolution, genome evolution, and molecular ecology. Prereq: BOTANY/GENETICS/ZOOG 466, GENETICS 467 or BIOCORE 383 or graduate student standing
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOG 625 Development of the Nervous System Credits: 2
Survey of the principles guiding neuronal development. Course will cover descriptive and experimental analyses of developmental mechanisms underlying the formation of both vertebrate and invertebrate nervous systems. Prereq: One intermed level crse in biol; background in development & neurobiol recommended
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOG 630 Cellular Signal Transduction Mechanisms Credits: 3
Lecture-discussion. Comprehensive coverage of human hormones, growth factors and other mediators; emphasis on hormone action and biosynthesis, cell biology of hormone-producing cells. Prereq: Intro biochem (Biochem 501 or 507 & 508) & cell biology (Biocore 303 or Zool 570 or Path750) or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOG 635 Neurobiology of Disease Credits: 2
Seminar course relating major categories of human neurological and ophthalmological disease to fundamental topics in neurobiology. Prereq: Zool/Neurosci 523 & 524 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOG 645 Modeling in Population Genetics and Evolution Credits: 3
Introduction to mathematical techniques and approaches for predicting evolutionary change within populations. Concentrates on classic population genetic models and results, including selection on one and several loci; mutation; non-random mating; drift. Evaluation based on periodic problem sets and independent projects. Prereq: Intro evolution, intro genetics, calculus, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOG 651 Conservation Biology Credits: 3
Application of ecological principles and human dimensions to the conservation of biological diversity. Topics: biodiversity science; conservation planning; population ecology; habitat loss, species exploitation, invasive species, pollution; human attitudes and activities as they affect the biosphere; approaches to monitoring interventions. Prereq: An ecology crse (eg, Botany/Zoology 460)
General Education: QR-B  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ZOOLOGY 655 Modeling Neurodevelopmental Disease Credits: 3
This course will systematically explore current animal models of human diseases that affect the central nervous system. Topics will include birth defects that disrupt normal brain architecture (holoprosencephaly and neural tube closure defects), birth defects affecting the visual system, and postnatal disease, e.g. neurodegeneration and stroke. This course is designed for graduate and advanced undergraduate students. Prereq: Graduate standing or BOTANY/GENETICS/ZOOLOGY 466, ZOOLOGY 470, NTP/PSYCH/ZOOLOGY 523, or ZOOLOGY 570
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 660 Climate Change Ecology Credits: 3
The evidence that the Earth's climate is changing at unprecedented rates is now overwhelming. Environmental tipping points are being crossed and many species are adapting or failing to adapt. Climate change poses a significant problem for conserving and managing wildlife and their habitats. In this class, students will be introduced to climate change and its ecological impacts through engaging class discussions, online climate exercises, and group projects aimed at developing climate change adaptation plans. Prereq: Junior or Senior standing as a Forest Science or Wildlife Ecology major; graduate student standing; F&W Ecol/Zoology/Botany 460; or consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ZOOLOGY 672 Historical Ecology Credits: 2
Historical Ecology is an area of ecology that considers the importance of past events for current ecosystems. Concepts and applications are emphasized. Multidisciplinary emphasis, for seniors and graduate students in biological sciences, social studies, and humanities. Discussion format. Prereq: Graduate or senior standing and consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 677 Internship in Ecology Credits: 2
A seminar course to provide support and structure for undergraduates interested in gaining hands-on experience working as a volunteer with local environmental, ecological or conservation groups. Prereq: Recommended for Jr & Sr; graded on a letter basis
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ZOOLOGY 681 Senior Honors Thesis Credits: 1 - 6
Independent research. Topic selected, if possible, before the close of the junior year. Prereq: Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 682 Senior Honors Thesis Credits: 1 - 4
Independent research. Topic selected, if possible, before the close of the junior year. Prereq: Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 691 Senior Thesis Credits: 1 - 6
Independent research. Topic selected, if possible, before the close of the junior year. Prereq: Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 692 Senior Thesis Credits: 1 - 4
Independent research. Topic selected, if possible, before the close of the junior year. Prereq: Senior standing
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 698 Directed Study Credits: 1 - 6
Selected research projects. Recommended for Jr and Sr. Prereq: Requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 699 Directed Studies in Zoology Credits: 1 - 6
Selected research projects. Recommended for Jr and Sr; graded on a lettered basis; requires written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

ZOOLOGY 725 Ecosystem Concepts Credits: 3
Scope and objectives of ecosystem ecology; roles of theory, long-term studies, comparative studies, and large-scale experiments; scaling problems; ecosystem services and ecological economics; adaptive ecosystem assessment and management. Prereq: Grad st. Experience in modeling, programming, or stats
Typically Offered: Occasionally
ZOLOGY 750 Problems in Oceanography  Credits: 3
Introduction to techniques used in the study of the biology, chemistry, geology, and physics of the marine environment.  Prereq:  Cons inst
Typically Offered: Occasionally

ZOLOGY 765 Developmental Neuroscience  Credits: 3
Analysis of neural development with emphasis on experimental approaches. Combination of lectures and discussions of primary literature. Topics include neural induction, patterning, mechanisms of axon guidance, neural crest cell migration and differentiation, cortical development, and synapse formation and elimination.  Prereq:  Grad st in biol sci; undergrads with cons inst
Typically Offered: Occasionally

ZOLOGY 799 Independent Study  Credits: 1 - 6
Advanced zoology, project related; not covered in regular courses.  Prereq:  Grad st or written cons inst
Typically Offered: Occasionally

ZOLOGY 820 Foundations of Evolution  Credits: 2
Through reading and analysis of the primary literature, this course will explore some of the most important themes and debates that have permeated evolutionary biology over the last 50 years. Students will read key papers related to each controversial topic, will debate the pros and cons of competing viewpoints, and will reflect on the relevance of the issues to contemporary evolutionary biology. Students will also write a paper that analyzes one topic in more detail. This course is intended for graduate students who plan to specialize in evolutionary biology, broadly construed.  Prereq:  Graduate or professional standing
Typically Offered: Fall

ZOLOGY 879 Advanced Landscape Ecology  Credits: 3
Landscape ecology emphasizes spatial patterning--its development and importance for ecological processes--and often focuses on large regions. Concepts, methods, and applications of landscape ecology will be learned through lectures, readings, exercises in quantitative approaches, and an independent project.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally

ZOLOGY 911 Limnology and Marine Science Seminar  Credits: 1
Sections in various fields of zoological research.  Prereq:  Grad st in limnology & marine sci grad prgm or cons inst
Typically Offered: Occasionally

ZOLOGY 950 Interdisciplinary Seminar in Animal Behavior  Credits: 1
Research methods in animal behavior studies in many disciplines.  Prereq:  Grad st
Typically Offered: Occasionally

ZOLOGY 953 Introduction to Ecology Research at UW-Madison  Credits: 1 - 2
This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students.  Prereq: None
Typically Offered: Fall

ZOLOGY 954 Seminar in Endocrinology-Reproductive Physiology  Credits: 0 - 1
Prereq:  Cons inst
Typically Offered: Occasionally

ZOLOGY 955 Seminar-Limnology  Credits: 1
Sections in various fields of zoological research.  Prereq:  Grad st and cons inst
Typically Offered: Occasionally

ZOLOGY 956 Seminar-Ecology  Credits: 1
Sections in various fields of zoological research.  Prereq:  Grad st & cons inst
Typically Offered: Occasionally
ZOOLOGY 957 Seminar-Evolution Credits: 1
Sections in various fields of zoological research. Prereq: Grad st or cons inst
Typically Offered: Occasionally

ZOOLOGY 958 Seminar-Biophysical and Physiological Ecology Credits: 1
Sections in various fields of zoological research. Prereq: Cons inst
Typically Offered: Occasionally

ZOOLOGY 960 Seminar in Cellular Biology Credits: 1
Sections in various fields of zoological research. Prereq: Grad st & cons inst
Typically Offered: Occasionally

ZOOLOGY 962 Seminar-Ethology Credits: 1
Sections in various fields of zoological research. Prereq: Grad st & written cons inst
Typically Offered: Occasionally

ZOOLOGY 965 Seminars in Developmental Biology Credits: 1
Sections in various fields of zoological research. Prereq: Grad st
Typically Offered: Occasionally

ZOOLOGY 980 Earth System Science Seminar Credits: 1
Topics in earth system science. Emphasis on the coupling between atmospheric, oceanic and land surface systems, involving physical geochemical and biological processes, and including interactions with human systems. Prereq: Grad st
Typically Offered: Occasionally

ZOOLOGY 990 Research Credits: 1 - 9
Prereq: Grad st
Typically Offered: Occasionally
LAW

LAW 329 Taxation: Concepts for Business and Personal Planning Credits: 3
An introduction to the U.S. income taxation concepts with emphasis on business and personal planning strategies. Taxes are placed in a framework which considers all costs of doing business. Includes approaches and skills needed to prepare individual, corporate, and partnership income tax returns. Prereq: Acct IS 100 or 300, or Law 811, or consent of instructor
Typically Offered: Fall, Spring

LAW 601 Introduction to American Law Credits: 3
An introduction to the American common law tradition and to the American legal system, especially for foreign law students and foreign and American graduate students. Prereq: Admission to MLI prgm or cons inst
Typically Offered: Occasionally

LAW 602 Legal Sources Credits: 3
Overview of the institutions and entities that create legal documents in the U.S.; how these documents are organized and found in a law library; introduction to common law case analysis. Prereq: Admission to MLI prgm or cons inst
Typically Offered: Occasionally

LAW 603 Legal Writing (LL.M.-L.I.) Credits: 3
An intensive course in legal analysis and the organization and writing of common legal documents. Prereq: Law 602 or cons inst
Typically Offered: Occasionally

LAW 641 Sociology of Law Credits: 3 - 4
Theory and research on the social origins, processes and effects of law; examination of law-related behavior, legal institutions, law and social structure, and law and social change; linkage to contemporary theoretical and political debates. Prereq: Junior standing and Soc 441 or Soc 475, or Law student
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit
Typically Offered: Fall, Spring

LAW 711 Contracts I Credits: 3 - 4
Creation of promissory liability; interpretation of words and conduct; exchange, reliance or formality as necessary for creation of promissory liability; remedies for breach of contract; unfairness as a reason for avoiding contractual liability.
Typically Offered: Fall

LAW 713 Legal Process Credits: 3 - 4
Function, sources, and development of law, focusing upon the administrative, legislative, and judicial processes and their interrelations; law-making institutions in action as they are called upon to handle social problems.
Typically Offered: Occasionally

LAW 714 Civil Procedure I Credits: 4
Development of the modern civil action including pleading, discovery, and the pretrial conference; the trial; motions after verdict and judgment; appeals; state and federal procedures.
Typically Offered: Fall

LAW 715 Torts I Credits: 3 - 5
A tort is roughly defined as a civil wrong, independent of contract: liability for physical and emotional harms inflicted by intentional misconduct or negligence, or without fault, and development of concepts and techniques in analyzing and solving tort problems.
Typically Offered: Fall
LAW 721 Contracts II Credits: 2 - 4
Nature of the obligations assumed by entering a contract; the power of parties to control this obligation; rights of those not a party to a contract.
Typically Offered: Occasionally

LAW 723 Legal Research and Writing Credits: 0 - 3
Legal research and legal bibliography, techniques of writing, organizing legal material, analyzing facts, and determining and predicting rules of law; library and computerized research; memoranda and brief writing; oral argument in moot court; small group critiques.
Typically Offered: Occasionally

LAW 724 Property Credits: 4 - 5
Foundation for advanced courses. Personal property and real property (land law); concepts of ownership and transfer of chattels (personal property), such as bailments, liens, pledges and gifts; historical introduction to law of real property precedes detailed study of nature of various ownership interests in land, called estates; landlord-tenant law; some preliminary treatment of land transfer (conveyancing).
Typically Offered: Occasionally

LAW 725 Introduction to Criminal Procedure Credits: 3
Various aspects of criminal procedure and criminal justice administration. Constitutional limitations upon criminal justice practices.
Typically Offered: Occasionally

LAW 726 Introduction to Substantive Criminal Law Credits: 3 - 4
Problems in defining what conduct should be subject to criminal penalties; the limitations of criminal law as a means for prevention and control of undesirable conduct.
Typically Offered: Fall

LAW 730 Federal Law and Indian Tribes Credits: 2 - 3
The study of the relationships between Federal, state, and tribal governments, the source and scope of their respective sovereignties, and time.
Typically Offered: Occasionally

LAW 731 Constitutional Law I Credits: 3 - 4
Powers of government, state and federal, under the Constitution of the United States; relations between federal and state authority (e.g., taxation and regulation of interstate commerce); relations between branches of the federal government; limitations on governmental authority by virtue of a distribution of power.
Typically Offered: Occasionally

LAW 732 Real Estate Transactions I Credits: 3 - 4
Basic legal elements of real estate transfer and finance; options, binder contracts, requirements as to writing, rights and duties between vendor and vendee, basic land contract and mortgage law and remedies, and the real estate recording system.
Typically Offered: Occasionally

LAW 733 Trusts and Estates Credits: 3 - 4
Basic probate and nonprobate devices for management and transmission of property in the family context. Includes consideration of Wisconsin's marital (community) property system, federal gift and estate tax issues, and nonproperty considerations in estate planning.
Typically Offered: Occasionally

LAW 735 Payments Systems Credits: 3
Articles 3, 4, and 5 of the Uniform Commercial Code: negotiable instruments, bank collection systems, and letters of credit. Prereq:
Typically Offered: Occasionally

LAW 736 Secured Transactions Credits: 3
Focuses on Article 9 of the Uniform Commercial Code, Secured Transactions; with some additional emphasis on Article 6, Bulk Sales; and Article 7, Documents of Title. Prereq:
Typically Offered: Occasionally
LAW 739 Religion and the Constitution  Credits: 2 - 3
This course covers the Free Exercise Clause and the Establishment Clause of the First Amendment to the U.S. Constitution.  Prereq:  Law 731
Typically Offered:  Occasionally

LAW 740 Constitutional Law II  Credits: 2 - 4
Rights of citizens against state and federal governments; the nature of due process and the equal protection of the law; the protection of freedom from invidious discrimination; the Civil Rights Acts; freedoms of expression, association, and religion.  Prereq:  Law 731
Typically Offered:  Fall, Spring

LAW 741 Business Organizations II: Publicly Held Corporations  Credits: 3 - 4
Law of business corporations; problems of control, management, and procurement and maintenance of capital; an introduction to securities regulation.
Typically Offered:  Occasionally

LAW 742 Taxation I  Credits: 3 - 5
Federal income taxation; basic rules, theory and policy.
Typically Offered:  Occasionally

LAW 743 Negotiations  Credits: 2 - 4
Examines a range of processes encountered by lawyers, including negotiation of, inter alia, injury claims, criminal charges, family disputes, and commercial disputes, as well as participation of their parties (mediators, judges).
Prereq:  Adv st
Typically Offered:  Occasionally

LAW 744 Administrative Law  Credits: 3
Role of the administrative process in society; emphasizes common powers and procedures; relationships among the legislative, judicial, executive and administrative agencies in the development of public policy.
Typically Offered:  Occasionally

LAW 745 Labor Relations Law  Credits: 3
Regulation of organization and representation of employees; collective bargaining, and employer and union practices; proceedings under the National Labor Relations Act and related federal statutes and analogous state acts.
Typically Offered:  Occasionally

LAW 746 Legislation  Credits: 3
Use of statutes and legislative materials in litigation and decision; problems of the lawyer in the interpretation of statutes, in representation of the client before legislative bodies, and in the presentation and argument of statutory authorities to a court.
Typically Offered:  Occasionally

LAW 747 Protective Labor Legislation  Credits: 3
Legal protection of individual workers against discrimination, physical damage, economic exploitation and insecurity through Fair Employment Practices, Workmen's Compensation, Fair Labor Standards, Unemployment Compensation, Social Security and similar legislation.  Prereq:
Typically Offered:  Occasionally

LAW 748 Antitrust  Credits: 3 - 4
Law relating to trade regulation and competitive practices; anti-trust and comparable laws dealing with monopoly, restraint of trade, and unfair methods of competition.
Typically Offered:  Occasionally

LAW 749 Trademarks  Credits: 2 - 3
Practical introduction to a neglected but socially and economically important field. Interaction of a developing common and federal law with the behavior and interests of businesspersons and consumers.
Typically Offered:  Occasionally

LAW 751 Patent Law  Credits: 2 - 4
Survey of the law of industrial property, including the law of patents and trade secrets.  Prereq:  Adv st
Typically Offered:  Occasionally
LAW 752 Copyright Law Credits: 2 - 4
Survey of state and federal laws affecting literary, musical, and artistic property. Prereq: Occasionally

LAW 753 Introduction to Intellectual Property Law Credits: 3 - 4
Survey of the laws of patents, copyrights, trade secrets, trademarks. Discussion of relationship of these laws to the laws of property, trade regulation, and privacy. Exploration of competing or complementary policy rationales for each intellectual property area. Prereq: Completion of required 1st yr law crs, or cons inst
Typically Offered: Occasionally

LAW 760 Role of the Police in a Free Society Credits: 3
Major problems especially in large urban areas. Specific aspects of the police function, such as their role in responding to serious deviant conduct, to self-destructive behaviour, to community conflict, and to the need for protecting constitutional rights and democratic processes. Problems that arise in defining police authority, in reviewing and controlling police discretion, and in seeking to achieve accountability of the police to the citizenry.
Typically Offered: Occasionally

LAW 765 Equal Employment Law Credits: 3 - 4
The growth, development, and implementation of equal employment opportunity law.
Typically Offered: Occasionally

LAW 768 Consumer Health Advocacy and Patient-Centered Care Clinical Credits: 1 - 7
Interdisciplinary health advocacy clinical supervised by diverse professional staff. Provide broad advocacy to patients with life-threatening and serious chronic illnesses. Advocacy topics include: medical decision-making, insurance, medical debt, disability issues. Weekly discussions of patient cases and related guest lectures.
Prereq: Graduate or Professional standing or acceptance in Capstone Certificate in Consumer Health Advocacy
Typically Offered: Fall, Spring, Summer

LAW 769 Consumer Issues in Health Care Credits: 1 - 3
Explores consumer issues in health care delivery in interdisciplinary discussion-based format. Covers current delivery system, expenditures/finance, managed care/insurance, barriers to access, reform, and other select topics. Ideal for future healthcare providers and others interested in patients’ experiences. Prereq: Grad st
Typically Offered: Fall, Spring, Summer

LAW 771 Selected Topics in Estate Planning Credits: 1 - 3
Intermediate and advanced topics in estate planning; topics reflect interests of available faculty and students.
Prereq: Law 733 & others as specified by instr
Typically Offered: Occasionally

LAW 772 The Use of Trusts in Estate Planning Credits: 2 - 3
Survey of common uses of trusts in estate planning, with a focus on drafting of appropriate provisions to accomplish estate planning objectives. Prereq: Law 733
Typically Offered: Occasionally

LAW 773 Law and the Elderly Credits: 2 - 3
This course addresses the issues faced by elderly clients and their families and caregivers in the context of legal, medical, social and regulatory concerns. Prereq: Law 733 or cons inst
Typically Offered: Occasionally

LAW 801 Evidence Credits: 4
Concepts of relevancy and policy in admission of evidence; hearsay, opinions, and other exclusionary rules; examination of witnesses, judicial notice, and procedural considerations.
Typically Offered: Occasionally

LAW 802 Civil Procedure II Credits: 3 - 4
Jurisdiction of courts, state and federal; joinder of claims and parties in civil action, and effect of judgments.
Typically Offered: Occasionally

LAW 808 Advanced Legal Writing Credits: 2 - 3
Preparation of legal documents in connection with a real or simulated legal problem. Emphasis on legal problems involving writing experiences different from those gained in Legal Writing I.
Typically Offered: Occasionally
LAW 811 Accounting and Law Credits: 3
Principles of accounting for lawyers. Election in the second year preferable, prior to Corporation Law and Taxation. Students with college accounting take the course for credit only with cons inst.
Typically Offered: Occasionally

LAW 814 Appellate Advocacy I Credits: 2 - 3
Lectures and discussions in basics of brief writing and oral advocacy.
Typically Offered: Occasionally

LAW 815 Appellate Advocacy II Credits: 1 - 3
Students participate in moot court tournaments in which, as representatives of the Law School, they engage in regional and national brief-writing and oral-advocacy competitions against students of other law schools.
Typically Offered: Occasionally

LAW 817 Business Organizations I Credits: 3 - 4
Law of employment, agency, partnership, limited partnership, and other types of unincorporated associations.
Typically Offered: Occasionally

LAW 818 Comparative Law Credits: 2 - 3
Civil law system, including its Roman Law antecedents, codification movement, and responses to selected current issues. Focus usually on the law of a single polity to encourage the viewing of law in its societal setting.
Typically Offered: Occasionally

LAW 820 Conflict of Laws Credits: 3 - 4
Rules applied by courts in recognizing and enforcing rights involving elements which occurred in a sister state or foreign country.
Typically Offered: Occasionally

LAW 821 Bankruptcy Law Credits: 2 - 4
Consumer credit regulation, enforcement of judgments, attachments, garnishments, fraudulent conveyances, assignments for the benefit of creditors, and bankruptcy.
Typically Offered: Occasionally

LAW 822 Family Law: Marriage and Divorce Credits: 2 - 4
Marriage and less formal spousal relationships, husband-wife relationships in on-going marriage; divorce and its economic and custody consequences; post-divorce relationships. Prereq: Cons inst required for Social Work
Typically Offered: Occasionally

LAW 823 Family Law: Parent and Child Credits: 3 - 4
The relationship of parent and child; the rights of unmarried mothers and fathers and their children; parental rights to custody vis a vis third parties; parents' rights to make decisions affecting children; neglect; termination of parental rights; the foster care system and adoption. Prereq: Graduate or professional standing
Typically Offered: Occasionally

LAW 824 Federal Jurisdiction Credits: 3
Legal problems that arise because our court system derives from both nation and states as separate sources of authority and is administered by federal and state judiciaries; jurisdiction of the federal courts (including questions of venue, process and litigating capacity, jurisdictional amount, and removal jurisdiction); relation of these courts to state courts; relationship of federal and state law, both as guides to judicial decision and in everyday affairs. Prereq:
Typically Offered: Occasionally

LAW 825 Insurance Law Credits: 3 - 4
Substantive law of property, life and liability insurance, including study of the fire and automobile forms; regulation of insurance companies, policies and practices. Rights and obligations of compensated sureties sometimes covered.
Typically Offered: Occasionally
LAW 827 International Law Credits: 2 - 3
Problems in private and governmental practice affected by international relations; the law applicable to questions of recognition and non-recognition of governments and nations; interpretation of treaties and other international agreements; jurisdiction of nations; effect of peace and war; formation, operation and function of various international agreements, and matters of international claims.
Typically Offered: Occasionally

LAW 828 International Transactions Credits: 2 - 3
Problems inherent in international commercial transactions; risks, benefits, and assumptions underlying business with or in a foreign country; international commercial transactions, investments and claims.
Typically Offered: Occasionally

LAW 829 Jurisprudence Credits: 2 - 3
Philosophies of law; surveys of analytical, sociological and ethical approaches to law and legal systems.
Typically Offered: Occasionally

LAW 830 Land Use Controls Credits: 3
Limitations imposed upon the use of privately owned land by the court-made law of nuisance, by private covenant, and by public action; master plan, official map, subdivision regulation, zoning, and urban redevelopment. Prereq: Graduate or professional standing
Typically Offered: Occasionally

LAW 837 Regulated Industries Credits: 2 - 3
Various aspects of regulation—control over price, supply and services—of different industries; public utilities and the transportation industries; interaction between the legislature, administrative agencies, and courts in development of regulatory policy.
Typically Offered: Occasionally

LAW 838 Real Estate Transactions II Credits: 2 - 3
Law of real estate finance, planning, and development, including tax and organizational aspects. Prereq: Law 732 and Law 742 or cons inst
Typically Offered: Occasionally

LAW 839 Remedies Credits: 2 - 3
Remedies of quasi-contract, constructive trust, equitable lien, reformation, etc., to redress enrichment obtained by tort, part performance of contract, duress, or mistake, or under other circumstances making its retention without such redress unfair.
Typically Offered: Occasionally

LAW 840 Taxation II Credits: 2 - 4
Advanced problems in federal income taxation; difficult, complex problems peculiar to corporations and shareholders—generally, the tax consequences of corporate organization, reorganization, and liquidation, of various kinds of distributions to shareholders, etc.; scope sufficiently narrow to permit thorough and rigorous study of relevant tax concepts and materials.
Typically Offered: Occasionally

LAW 843 Unfair Trade Practices Credits: 3
Laws concerning competition in business, with reference to the responsibilities of administrative agencies; trademarks, unfair competition, price maintenance, price discrimination.
Typically Offered: Occasionally

LAW 844 Taxation of Trusts and Estates Credits: 2 - 4
Federal estate and gift taxes, including the determination of the gross estate, life insurance, joint ownerships, powers of appointment, charitable and marital deductions, gifts to minors, income tax problems, simple and complex trusts, grantor trusts, income and deductions in respect of a decedent, problems of basis, throwback rules. Prereq: Law 742, & 733-734 or cons inst
Typically Offered: Occasionally

LAW 845 Water Rights Law Credits: 2 - 3
Acquisition and nature of private rights in water comparing the riparian and appropriation legal systems; public rights as limitations on private rights, the firming up of rights by grant, contract, compulsory purchase and prescription and the administrative systems for water quality management.
Typically Offered: Occasionally
LAW 848 Introduction to Environmental Law Credits: 3
Policy, administration and adjudication related to the environmental complex of population, environmental quality and resource development. Common-law doctrine applied and statutory measures adopted by Wisconsin and by the federal government to protect the public interest in resource preservation and management.
Typically Offered: Occasionally

LAW 849 Pre-Trial Advocacy Credits: 3
This course teaches students about the lawyering skills on which litigators spend the vast majority of their time; i.e. skills pertinent to the pre-trial phase of a lawsuit. It uses simulation exercises and extensive feedback from experienced practitioners.
Typically Offered: Occasionally

LAW 850 Professional Responsibilities Credits: 1 - 3
The ethical and professional responsibility of practicing lawyers. Prereq:
Typically Offered: Occasionally

LAW 852 Trial Advocacy Credits: 2 - 4
Techniques involved in the examination of witnesses, including the lawyer's preparation, the preparation conference with the witness, direct examination, cross examination, objections, and the introduction of exhibits. Teaching methods include demonstrations by trial lawyers and practice sessions by the students under the supervision of trial lawyers.
Typically Offered: Occasionally

LAW 854 Clinical Program Credits: 1 - 7
See description under Special Programs in chapter on Law Curriculum.
Typically Offered: Occasionally

LAW 858 Collective Bargaining: The Arbitration Process Credits: 3
Legal and economic aspects of current issues in collective bargaining. Prereq: Grad st & cons inst
Typically Offered: Occasionally

LAW 860 Advanced Criminal Procedure Credits: 2 - 3
Various important procedural problems arising in federal and state criminal proceedings.
Typically Offered: Occasionally

LAW 862 Legal Assistance to Institutionalized Persons Credits: 1 - 7
A 'law-in-action' course. Student gains an understanding of institutional programs for convicted criminal offenders and confined mental health patients; interviews newly admitted inmates or mental patients. These interviews determine whether there are aspects of each person's conviction or commitment, his or her current institutional treatment, or relationship with the outside world, which need the assistance of a legally trained person. An opportunity to develop interviewing, analytical, writing, and problem-solving abilities. Prereq:
Typically Offered: Occasionally

LAW 863 Litigation in Criminal Cases Credits: 3 - 4
An analysis, through lecture and oral argument, of several of the major pre-trial and trial subconstitutional issues of criminal litigation as well as several issues of constitutional dimension not covered in the conventional criminal law courses. Prereq: Law 725 & 726
Typically Offered: Occasionally

LAW 867 Taxation III Credits: 2 - 4
Survey of advanced issues in the federal income taxation of business and investment entities. Emphasizes problems encountered in common business and investment transactions, and explores practical and ethical solutions to such problems. Prereq: Law 742 & 840
Typically Offered: Occasionally

LAW 868 State and Local Taxation Credits: 2 - 4
Survey of state and local tax law, principally income taxes, sales and use taxes, and property taxes. Explores the typical statutory structures under which these taxes are imposed. Significant emphasis will be given to policy issues faced by state and local governmental bodies. Prereq Law 742
Typically Offered: Occasionally
LAW 870 International Tax Credits: 3
International taxation concepts and issues including jurisdiction rules, tax avoidance and evasion, fiscal relations between industrialized countries and less developed countries; host country taxation of foreign persons and home country taxation of foreign income. Prereq: Law 742 required; Law 840 recommended
Typically Offered: Occasionally

LAW 871 International Trade Law Credits: 3
Legal institutions affecting international transactions with a focus on U.S. laws and the principal treaties involved. Topics include the international impact of U.S. securities, antitrust and intellectual property laws, various trade laws of the U.S. and other countries, and the effects of treaties.
Typically Offered: Occasionally

LAW 872 Legal Issues Involving North America and East Asia Credits: 2
Public and private laws affecting international trade and investment flows between North America and East Asia as well as other issues that affect relations between the countries.
Typically Offered: Occasionally

LAW 873 Immigration Law Credits: 3
Survey of the immigration law of the United States. Prereq: Completion of required 1st yr law crses
Typically Offered: Occasionally

LAW 880 Client Counselling Credits: 1 - 3
Client interviewing, analysis of problems as presented by clients, techniques for client counseling and related law office practices. Students practice counseling of clients in hypothetical cases under the supervision of experienced practitioners. From the students taking the course, a team or teams may be selected for the national Client Counseling Competition.
Typically Offered: Occasionally

LAW 885 Wisconsin International Law Journal Credits: 1 - 3
WILJ is a student published law journal dealing with legal issues having significant international aspects. Each volume is comprised of student case notes and comments as well as articles by legal scholars and practitioners. Prereq:
Typically Offered: Occasionally

LAW 886 Wisconsin Journal of Law, Gender, and Society Credits: 1 - 3
A student-published journal devoted to the intersection of law and gender with issues of race, ethnicity, socioeconomic status, and sexual orientation. The journal, established in 1985, is one of the oldest journals in the country focusing exclusively on gender and the law. Student work on the journal may include writing a piece for publication, reviewing submissions from professional authors, or editing student and professional articles. Prereq: None
Typically Offered: Occasionally

LAW 889 Law Review Credits: 1 - 3
Typically Offered: Occasionally

LAW 902 Juvenile Justice Administration Credits: 2 - 3
Formal structure and operational characteristics; objectives of the system, its problems with due process, and the roles of the police, lawyers and social workers.
Typically Offered: Occasionally

LAW 904 Selected Problems in Constitutional Law Seminar Credits: 2 - 4
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 905 Bioethics and the Law Credits: 2 - 4
Introduction to the legal, ethical and public policy dimensions of modern medicine and biomedical research. Informed consent, human experimentation, death and dying, organ transplantation, allocation of scarce resources. May cover reproductive and genetic issues in some years.
Typically Offered: Occasionally
LAW 906 Law, Science and Biotechnology Seminar Credits: 2 - 4
Legal, ethical, social and public policy questions raised by modern scientific and technological developments, with a particular focus on biotechnology. Prereq: Cons inst
Typically Offered: Occasionally

LAW 907 Selected Problems in Professional Responsibility Seminar Credits: 2 - 3
Perspectives on the ethics of professional life, beyond the requirements of professional codes and rules. Topics and approach reflect interests of instructor and students. May be open to non-law students with permission of instructor. Prereq: Cons inst (may include prior work in some aspect of professional responsibility)
Typically Offered: Occasionally

LAW 911 Seminar-Psychiatry and Law Credits: 2 - 3
Operational processes in the compulsory commitment and release of the mentally ill; interrelationships between the law and psychiatry in decision making.
Typically Offered: Occasionally

LAW 914 Securities Regulation Credits: 3
Problems under the Securities and Exchange Act and other federal and state regulatory measures; operation of the S.E.C.
Typically Offered: Occasionally

LAW 915 Selected Problems in Criminal Justice Administration Seminar Credits: 2 - 3
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 918 Selected Problems in International Law-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 919 The Holocaust: Facts, Trials, Verdicts, Post-Verdicts Credits: 2
The background to the Holocaust, its implementation, the efforts to impose the criminal law on its perpetrators and the points of interaction between the Holocaust and U.S. policy. Prereq: Law stdt or Jr st
Typically Offered: Occasionally

LAW 922 Selected Problems in Jurisprudence-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 926 Selected Problems of Tort Law-Seminar Credits: 2 - 3
Contents and format determined by instructor.
Typically Offered: Occasionally

LAW 928 Selected Problems in Land Law-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 932 Selected Problems of Administrative Law-Seminar Credits: 2 - 3
Topics reflect interests of the instructor and students.
Typically Offered: Occasionally

LAW 935 Health Law and Administration Seminar Credits: 2 - 3
The distribution of health services among income groups; financing of health care; standards of quality; and health policy planning. Prereq: Adv st, cons inst
Typically Offered: Occasionally

LAW 936 Torts II Credits: 2 - 3
Advanced torts, involving the interests in family, social, professional, trade and political relations, and individual dignity (defamation, disparagement, invasion of privacy by private persons and the state); protection of these interests by the law of torts and alternative means; constitutional dimensions of the problem.
Typically Offered: Occasionally
LAW 939 Selected Problems in Family Law-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 940 Law and Contemporary Problems Credits: 2 - 3
Relationship of law to current public issues. Topics reflect interests of instructor and students. Prereq:
Typically Offered: Occasionally

LAW 942 European Union Law Credits: 2 - 3
Introduction to European Union law, including the relationship between EU and Member State law, EU institutions, the law of the common market (i.e., free movement of goods, persons, services and capital) and environmental law and social policy.
Typically Offered: Occasionally

LAW 943 Selected Problems in Legislation-Seminar Credits: 2 - 3
Current issues in the drafting and enactment of legislation and in the use of legislation in litigation. Selection of issues reflects the interests of instructor and students.
Typically Offered: Occasionally

LAW 944 Selected Problems in Modern American Legal History-Seminar Credits: 2 - 3
Particular topics, with emphasis on the relation of law to main currents of political, social, and economic thought in the United States.
Typically Offered: Occasionally

LAW 945 Law and Correctional Institutions-Seminar Credits: 2 - 3
Practice of criminal corrections and the law governing it; probation, parole, rehabilitative efforts, prison administration, and legal and administrative procedures for testing the propriety of restrictions.
Typically Offered: Occasionally

LAW 949 Selected Problems in Civil Procedure-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students.
Typically Offered: Occasionally

LAW 950 Lawyering Skills Course Credits: 0 - 10
Training in skills used when applying the law in general practice. Taught by teaching teams of practicing lawyers, under the supervision of a faculty member, with at least one lawyer for each 20 students. Offered 3 1/2 hours a day during 10 weeks of the semester, with no classes in this course during the balance of the semester. Focuses on the skills of interviewing, drafting, negotiations, and using time efficiently; in the context of criminal defense, probate, debtor-creditor, corporations, preparation for civil trial, divorce, real estate, administrative proceedings, and law office operation. Each student handles approximately 35 hypothetical legal matters that are likely to be the work o
Typically Offered: Occasionally

LAW 953 Selected Problems in Business Organization-Seminar Credits: 1 - 3
In business planning and business organizations including proprietorships, partnerships, corporations and trusts.
Typically Offered: Occasionally

LAW 954 Corporate Finance Law Credits: 3
This course presents the basics of finance for business lawyers, and the law and legal strategy surrounding the creation of debt instruments.
Typically Offered: Occasionally

LAW 955 Public Sector Labor Relations Law Seminar Credits: 2 - 3
Legal and public policy issues relating to public sector unionism in a multiplicity of jurisdictions, including representation questions, scope of bargaining, limitations on the right to strike, impasse procedures, and grievance arbitration. Prereq:
Typically Offered: Occasionally

LAW 957 Introduction to Estate Planning Credits: 2 - 3
Issues related to estate planning; including function of the lawyer, ethical issues, estates not subject to tax, basic elements of tax-oriented planning, living trusts, health care issues, gift strategies. Prereq: Law 733, 742, or cons inst
Typically Offered: Occasionally
LAW 961 Selected Problems in Trade Regulation-Seminar Credits: 2 - 3
Topics reflect interests of instructor and students. Prereq: Econ 761
Typically Offered: Occasionally

LAW 977 Selected Problems in Policing Seminar Credits: 2 - 3
Topics reflect interests of instructor and students. 
Typically Offered: Occasionally

LAW 980 African Law Credits: 2 - 3
Development of the legal systems of English speaking Africa, under the colonial regimes and since independence. Offered as part of the African Studies Program.
Typically Offered: Occasionally

LAW 981 Law and Modernization in the Developing World Seminar Credits: 2 - 3
Law as a system of social engineering in the economic and social modernization of developing countries. Problems of developing rules with a high probability of inducing behavior likely to lead to modernization.
Typically Offered: Occasionally

LAW 982 Latin American Legal Institutions Credits: 2 - 3
Development and function of legal institutions in Latin America, particularly in their relationship to social and economic conditions. Historical and institutional antecedents of the legal systems in Latin America; the manner in which legal institutions have responded to various economic and social problems.
Typically Offered: Occasionally

LAW 988 Selected Problems in Environmental Law-Seminar Credits: 2 - 3
Typically Offered: Occasionally

LAW 989 Environmental Law and Practice Credits: 3
Presents environmental statutes, cases, and regulations, and discusses their implementation. The focus of the course will be both law and practice. It will provide a survey of substantive environmental law and their application in permitting, commercial transactions and enforcement. Prereq: Completion of required 1st-yr law crses. Law 848 recommended
Typically Offered: Occasionally

LAW 990 Directed Research Credits: 1 - 12
With consent of faculty supervising the research; scope and subject arranged between student and faculty. 
Prereq: Consent of instructor 
Typically Offered: Occasionally

LAW 991 Directed Reading Credits: 1 - 3
Independent readings from a list prepared by instructor. Subject matter determined by agreement between instructor and student. No student may count more than 8 credits of Directed Reading towards satisfaction of the requirements of the J.D. degree. Prereq: Consent of instructor
Typically Offered: Occasionally
SCHOOL OF MED & PUBLIC HEALTH

ANATOMY

ANATOMY 328 Human Anatomy Credits: 3
Lectures. Structure of the human body. Prereq: Admission to professional curric in nursing, pre-nursing, or pre-physician assistant program
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANATOMY 329 Human Anatomy-Kinesiology Credits: 2
Prereq: Kinesiology major; kinesiology majors must take Anatomy 328 prior to or concurrent with Anatomy 329. Required for dance-related majors. Open to Fr
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ANATOMY 429 Human Anatomy Laboratory for Physician Assistants Credits: 5
Prosected specimens and some supervised dissection. Prereq: Admission to phy asst professional curric or cons inst
Typically Offered: Summer

ANATOMY 611 Systems Neuroscience Credits: 4
Introduction to the anatomy and physiology of the mammalian nervous system. Lectures will cover the neuroanatomy of the major subdivisions of the human brain, the major sensory and motor systems, and higher order functions. Lab/discussion sections will emphasize readings from the primary literature and hands-on dissections. Prereq: Physiol 610
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANATOMY 619 Microscopy of Life Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANATOMY 622 Human Anatomy-Physical Therapy, Occupational Therapy Credits: 6
Gross human anatomy involving complete dissection of the human body. Special emphasis is placed on the musculoskeletal and peripheral nervous systems, and living subject and surface anatomy. Prereq: Admission to phys or occ therapy professional program, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

ANATOMY 625 Brain Cell Cultures and Imaging: A Lab Course Credits: 4
Hands-on laboratory training in neuronal cell culture, live and fixed neuron labeling and microscopy techniques to visualize neurons in culture, as well as image analysis methods. Prereq: Intro crses in biochem, cell biology & anatomy. Enrollment limited to 12 students, authorized by cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ANATOMY 630 Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex Credits: 3
Current literature will be considered in lectures and discussions that provides insight into how the cerebral cortex processes sensory information to generate and store cogent representations of the external world. The course includes laboratory exercises and demonstrations. Prereq: Intro neurosci crse highly recommended: Neurosci/Anat/Phmcol/Physiol 611, Med Sc-M 731, Comp Bio 505, Zool/Neurosci/Psych 523, Psych/Neurophy/Neurosci/Zool 524; or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
ANATOMY 637 Functional Neuroanatomy Credits: 3
For physical therapy and occupational therapy majors. Motor and sensory systems under normal and altered conditions. Prereq: Anatomy 622 with grade of C or better or consent of instructor
Typically Offered: Fall

ANATOMY 660 Electron Microscopy: Theory & Practice Credits: 3
Prereq: Cons inst
Typically Offered: Summer

ANATOMY 675 Topics in Anatomy Credits: 1 - 3
Special topics in anatomy. See footnote in Timetable for specific topic. Prereq: Vary according to topic
Typically Offered: Fall, Spring, Summer

ANATOMY 699 Independent Study Credits: 1 - 4
Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

ANATOMY 700 Cytoskeletal Dynamics Credits: 2
Course content is topical and current. The course covers such issues as microtubule dynamics, microtubule-associated proteins, microtubule-organizing centers, actin filaments, actin regulatory proteins, intermediate filaments, cell motility, mitosis, process outgrowth, and cell differentiation. Prereq: Grad st or Sr with cons inst; Zoology 570 or equiv
Typically Offered: Occasionally

ANATOMY 710 Cell Structure and Function Credits: 3
An interdisciplinary course that highlights structure and function at the cellular level as related to health and disease states. Prereq: Med student
Typically Offered: Occasionally

ANATOMY 711 Integrated Medical Anatomy Credits: 4
Thorough progression in the dissection of the human body and in descriptive and functional human anatomy. Second semester only open to medical students. Prereq: Med stdt
Typically Offered: Occasionally

ANATOMY 722 Clinical Anatomy and Radiology Credits: 4
Anatomy and surgery of head and neck, body wall, cavities and pelvic outlet. Hands on experience in interpreting radiological cross-sectional images. Prereq: Anat 711, Sr Med or Grad st
Typically Offered: Occasionally

ANATOMY 725 Muscle Biology Credits: 2
Anatomy, physiology, and biochemistry of muscle. Prereq: Crse in biochem or biomolecular chem & physiol or cons inst
Typically Offered: Occasionally

ANATOMY 765 Developmental Neuroscience Credits: 3
Analysis of neural development with emphasis on experimental approaches. Combination of lectures and discussions of primary literature. Topics include neural induction, patterning, mechanisms of axon guidance, neural crest cell migration and differentiation, cortical development, and synapse formation and elimination. Prereq: Grad st in biol sci; undergrads with cons inst
Typically Offered: Occasionally

ANATOMY 990 Research and Thesis Credits: 1 - 9
Prereq: Cons inst
Typically Offered: Occasionally

ANATOMY 999 Advanced Independent Study Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

ANESTHESIOLOGY
ANESTHES 699 Independent Study Credits: 0 - 9
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

ANESTHES 812 Third Year Anesthesia Credits: 1 - 2
Prereq: 3rd yr Med st
Typically Offered: Occasionally

ANESTHES 910 Laboratory Research in Anesthesiology-CSC Credits: 1 - 4
Prereq: 4th yr Med st
Typically Offered: Occasionally

ANESTHES 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships (student must have Fourth Year Committee approval to count for fourth year credit). Prereq: 4th yr Med st
Typically Offered: Occasionally

ANESTHES 920 Clinical Anesthesia Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

ANESTHES 921 Clinical Anesthesia Clerkship-LaCrosse Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

ANESTHES 930 Advanced Cardiac Life Support (ACLS) Credits: 1
This course provides training and certification in advanced cardiac life support (ACLS). Students will learn to successfully manage the first ten minutes of cardiorespiratory emergencies. Students will practice their ACLS skills and be assessed in the human patient simulator lab. Prereq: 4th yr Med st
Typically Offered: Occasionally

ANESTHES 950 Advanced Anesthesiology Workshop Credits: 1
Focused workshop designed for graduating medical students matched into Anesthesiology. Activities include lectures, discussions, problem-based learning discussion (PBLD), simulation, hands-on workshops. Prereq: ANESTHES 812, ANESTHES 920, ANESTHES 921 or ANESTHES 930
Typically Offered: Spring

BIOMOLECULAR CHEMISTRY

BMOLCHEM 314 Introduction to Human Biochemistry Credits: 3
Lectures and conferences on introductory aspects of biological chemistry with an emphasis on providing a broad overview of both basic and clinical aspects of human biochemistry for health professionals. Prereq: Chem 104 or 108 or equiv
L&S Breadth: Physical Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

BMOLCHEM 503 Human Biochemistry Credits: 3
Lectures and conferences on basic principles of biological chemistry with emphasis on its application to the medical sciences. Prereq: Chem 341 or 343 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Not Applicable

BMOLCHEM 504 Human Biochemistry Laboratory Credits: 2
Lab and conferences on basic principles of biological chemistry with emphasis on general methods and techniques. Prereq: BmolChem 503 or Biochem 501 or equiv; 503 may be taken con; or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring, Summer

BMOLCHEM 606 Mathematical Methods for Structural Biology Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological structures. Mathematical techniques include ordinary and partial differential equations, 3D Fourier analysis and optimization. Biological applications include protein folding, molecular dynamics, implicit solvent electrostatics, and molecular interactions. Prereq: (MATH 234 or 320) and (COMP SCI 301 or 302)
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall
**BMOLCHEM 609 Mathematical Methods for Systems Biology**  Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological systems. Mathematical techniques include dynamical systems and differential equations. Applications to biological pathways, including understanding of bistability within chemical reaction systems, are emphasized.  
Prereq: Math 340 or 341; Math 415, or cons inst  
L&S Level:  Advanced  
L&S Credit:  Counts for LAS credit  
Typically Offered:  Every Other Spring

**BMOLCHEM 627 Methods and Technologies for Protein Characterization**  Credits: 2 - 3
This course seeks to engage students interested in chemical instrumentation and those who desire to apply proteomic technologies to current biological problems. Understanding the current proteomics landscape, the limitations of these technologies, and their practical applications are among the course learning objectives.  
Prereq:  Graduate student standing.  
L&S Breadth:  Physical Science  
L&S Level:  Advanced  
L&S Credit:  Counts for LAS credit  
Typically Offered:  Spring

**BMOLCHEM 668 Microbiology at Atomic Resolution**  Credits: 3
Three-dimensional protein structures form the basis for discussions of high resolution microbiology; how particular problems are solved with given protein architectures and chemistries and how themes of protein structure are modified and recycled.  
Prereq:  Biochem (e.g. Biochem 501), molecular biol (e.g. Bact 526 or 612) required, one semester of physical chem preferred  
L&S Breadth:  Biological Science  
L&S Level:  Intermediate/Advanced  
L&S Credit:  Counts for LAS credit  
Typically Offered:  Spring

**BMOLCHEM 675 Advanced or Special Topics in Biomolecular Chemistry**  Credits: 1 - 3
Prereq:  Cons inst  
L&S Breadth:  Biological Science  
L&S Level:  Advanced  
L&S Credit:  Counts for LAS credit  
Typically Offered:  Fall, Spring, Summer

**BMOLCHEM 699 Special Research Problems**  Credits: 1 - 6
Conferences.  
Prereq:  Cons inst  
L&S Level:  Advanced  
L&S Credit:  Counts for LAS credit  
Typically Offered:  Fall, Spring, Summer

**BMOLCHEM 701 Professional Responsibility**  Credits: 1
Training for the practical aspects of being a scientist. Will cover ethics, peer review, grant writing, science communication, career alternatives, paper writing, experimental design, research documentation, science funding, academic-private interface, scientific fraud, and more.  
Prereq:  Admission to the IPiB grad program  
Typically Offered:  Occasionally

**BMOLCHEM 704 Comprehensive Human Biochemistry**  Credits: 5
Lectures, conferences, and lab. Comprehensive basics in the chemistry, enzymology, and metabolism of living systems, with emphasis on the biochemical aspects of function and control.  
Prereq:  Org chem, physics & zool.  
Crse open to stdnts registered in Med School  
Typically Offered:  Occasionally

**BMOLCHEM 710 Exploring Biochemical Function of Macromolecules**  Credits: 2
Required for first-year IPiB graduate students, this course focuses on topics and approaches applicable to an in-depth understanding of fundamental biochemical research.  
Prereq:  Graduate standing & consent of instructor  
Typically Offered:  Spring

**BMOLCHEM 720 Experimental Design and Paradigms in Cellular Biochemistry and Molecular Biology**  Credits: 3
A literature-based course taught in module format and covering the following areas from historical to modern contexts: biochemistry of post-translational modification of proteins, model organisms, transcriptional switches, chromosome replication, and RNA in biological regulation.  
Prereq:  Graduate or professional standing  
Typically Offered:  Spring

**BMOLCHEM 721 Molecular and Medical Genetics**  Credits: 3
General genetics principles, with emphasis on human and clinical genetics.  
Prereq:  1st yr st in Med Sch or cons inst  
Typically Offered:  Occasionally

**BMOLCHEM 901 Biomolecular Chemistry Seminar**  Credits: 1
Prereq:  Cons inst  
Typically Offered:  Occasionally
BMOLCHEM 913 Seminar-RiboGroup (Advanced) Credits: 1
Student-led discussions of RNA-related problems. Prereq: Biochem 603 or equiv, Genetics 466 or equiv; cons inst
Typically Offered: Occasionally

BMOLCHEM 914 Seminar-Molecular Biosciences (Advanced) Credits: 1
During the fall semester, molecular biosciences trainees who have not achieved dissertator status will present seminars based primarily on literature related to their projects. During the spring semester, molecular biosciences trainees with dissertator status will present seminars based upon their own research. Prereq: None
Typically Offered: Fall, Spring, Summer

BMOLCHEM 990 Advanced Biomolecular Chemistry and Research Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

BIOSTATISTICS & MED INFORMATIC

BMI 451 Introduction to SAS Programming for Population Health Credits: 2
Use of the SAS programming language for the management and analysis of biomedical data. Prereq: Pop Hlth grad student or consent of instructor
Typically Offered: Fall, Spring

BMI 511 Introduction to Biostatistical Methods for Public Health Credits: 3
Provides breadth in biostatistical methods for public health practitioners. Topics will include research design, data collection methods and database management, statistical computing and programming, descriptive statistics in tables and graphics, introductory statistical methods, and survey sampling. Prereq: Declared in the Master of Public Health (MPH) program. Not open to students who have taken BMI/STAT 541 or BMI/POP HLTH 551
Typically Offered: Fall

BMI 541 Introduction to Biostatistics Credits: 3
Course designed for the biomedical researcher. Topics include: descriptive statistics, hypothesis testing, estimation, confidence intervals, t-tests, chi-squared tests, analysis of variance, linear regression, correlation, nonparametric tests, survival analysis and odds ratio. Biomedical applications used for each topic. Prereq: Graduate standing. Students may not enroll if they have completed BMI 511 or BMI 551.
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BMI 542 Introduction to Clinical Trials I Credits: 3
Intended for biomedical researchers interested in the design and analysis of clinical trials. Topics include definition of hypotheses, measures of effectiveness, sample size, randomization, data collection and monitoring, and issues in statistical analysis. Statistics graduate students should take Stat 641. Prereq: Stat 541 or equiv or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BMI 544 Introduction to Clinical Trials II Credits: 3
Intended for biomedical researchers, focuses on design, implementation, and conduct of clinical trials. Topics include: regulatory requirements; data collection; data quality and management; budgets; federal, institutional, and sponsor-defined requirements; establishment of research infrastructures; preparation of investigator-INDs; investigator responsibilities. Prereq: BMI 541 or equiv & BMI 542 & cons inst
Typically Offered: Fall

BMI 546 Practicum in Clinical Trial Data Analysis and Interpretation Credits: 3
Provides practice in analysis and interpretation of existing datasets from national and international clinical trials in a variety of diseases. Students will develop a research question, review clinical protocols, and analyze available data to prepare a report. Prereq: Stat 541 or 572 & Stat 542 or 641
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
BM I 551 Introduction to Biostatistics for Population Health Credits: 3
Course designed for population health researcher. Topics include descriptive statistics, elementary probability, probability distributions, one- and two-sample normal inference (point estimation, hypothesis testing, confidence intervals), power and sample size calculations, one- and two-sample binomial inference, underlying assumptions and diagnostic work. Prereq: Declared in the Population Health or Epidemiology graduate program. Students may not enroll if they have taken BMI/STAT 511 or BMI/STAT 541
Typically Offered: Fall

BM I 552 Regression Methods for Population Health Credits: 3
Introduction to the primary statistical tools used in epidemiology and health services research; multiple linear regression, logistic regression and survival analysis. Prereq: Pop Hlth/BMI 451 and Pop Hlth/BMI 551 ; or cons inst
Typically Offered: Spring

BM I 567 Medical Image Analysis Credits: 3
Present introductory medical image processing and analysis techniques. Topics include medical imaging formats, segmentation, registration, image quantification, classification. Prereq: CS 367 (or programming experience with some high-level programming language), Math 221, and some familiarity with introductory concepts in probability and linear algebra or by consent of the instructor.
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

BM I 576 Introduction to Bioinformatics Credits: 3
Algorithms for computational problems in molecular biology. The course will study algorithms for problems such as: genome sequencing and mapping, pairwise and multiple sequence alignment, modeling sequence classes and features, phylogenetic tree construction, and gene-expression data analysis. Prereq: Comp Sci 367, Math 222
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BM I 606 Mathematical Methods for Structural Biology Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological structures. Mathematical techniques include ordinary and partial differential equations, 3D Fourier analysis and optimization. Biological applications include protein folding, molecular dynamics, implicit solvent electrostatics, and molecular interactions. Prereq: (MATH 234 or 320) and (COMP SCI 301 or 302)
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

BM I 609 Mathematical Methods for Systems Biology Credits: 3
Intended to provide a rigorous foundation for mathematical modeling of biological systems. Mathematical techniques include dynamical systems and differential equations. Applications to biological pathways, including understanding of bistability within chemical reaction systems, are emphasized. Prereq: Math 340 or 341; Math 415, or cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

BM I 617 Health Information Systems Credits: 3
Provides grounding in core concepts of health information systems. Major applications include clinical information systems, language and standards, decision support, image technology and digital libraries. Evaluation of IE tools and perspectives designed to improve the quality, efficiency and effectiveness of health information. Prereq: I SY E 417
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

BM I 641 Statistical Methods for Clinical Trials Credits: 3
Statistical issues in the design of clinical trials, basic survival analysis, data collection and sequential monitoring. Intended for statistics graduate students; those with medical backgrounds should take Stat 542. Prereq: Math/Stat 310 or equiv or cons inst
L&S Breadth: Natural Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

BM I 642 Statistical Methods for Epidemiology Credits: 3
Methods for analysis of case-control, cross sectional, and cohort studies. Covers epidemiologic study design, measures of association, rates, classical contingency table methods, and logistic and Poisson regression. Prereq: Statistics 310 or equivalent or consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
BM 651 Advanced Regression Methods for Population Health Credits: 3
Extension of regression analysis to observational data with unequal variance, unequal sampling and propensity weights, clusters and longitudinal measurements, using different variance structures, mixed linear models, generalized linear models and GEE. Matrix notation will be introduced and underlying mathematical and statistical principles will be explained. Examples use data sets from ongoing population health research. Prereq: Pop Hlth 798 and Pop Hlth 552; or cons inst
Typically Offered: Fall

BM 652 Topics in Biostatistics for Epidemiology Credits: 1 - 3
Each module will adopt an in-depth focus on a biostatistical method of particular relevance to epidemiology such as measurement error, missing data, intermediate variables, complex study designs, meta-analysis, splines, propensity scores, causal inference, spatial statistics and resampling. One or more modules will be offered every spring semester. Prereq: BMI/PHS 551 and PHS/BMI 552; and Stat 850 or PHS/BMI 651; or consent of instructor
Typically Offered: Fall, Spring

BM 699 Independent Study Credits: 1 - 3
Directed study to pursue knowledge beyond curriculum. Prereq: Jr st or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

BM 741 Survival Analysis Theory and Methods Credits: 3
Theory and practice of analytic methods for censored survival data, including nonparametric and parametric methods, the proportional hazards regression model, and a review of current topics in survival analysis. Prereq: Stat 610 or 710 or equivalent or consent of instructor
Typically Offered: Occasionally

BM 767 Computational Methods for Medical Image Analysis Credits: 3
Study of computational techniques that facilitate automated analysis, manipulation, denoising, and improvement of large-scale and high resolution medical images. Design and implementation of methods from computer Vision and Machine Learning to efficiently process such image data to answer biologically and clinically meaningful scientific questions. Prereq: Comp Sci 367 or an equivalent high level programming class, basic proficiency in Calculus and Linear Algebra
Typically Offered: Every Other Fall

BM 768 Statistical Methods for Medical Image Analysis Credits: 3
Introduce key statistical methods and concepts for analyzing various medical images. Analyze publicly available and student/instructor supplied imaging data using the most up-to-date methods and tools. Aimed at graduate student and researchers with strong quantitative background. Prereq: Two semesters of statistics courses (STAT 309-310), or the consent of instructor. The course is self-contained. The knowledge of calculus and linear algebra is needed
Typically Offered: Occasionally

BM 773 Clinical Research Informatics Credits: 3
Course will familiarize students with basic informatics principles and techniques to support clinical research. Content includes information systems for protocol design; regulatory compliance; approaches for patient recruitment; efficient protocol management; data collection and acquisition; data security, storage, transfer, processing and analysis. Prereq: Graduate or professional standing
Typically Offered: Spring

BM 776 Advanced Bioinformatics Credits: 3
Advanced course covering computational problems in molecular biology. The course will study algorithms for problems such as: modeling sequence classes and features, phylogenetic tree construction, gene-expression data analysis, protein and RNA structure prediction, and whole-genome analysis and comparisons. Prereq: BMI 576
Typically Offered: Occasionally

BM 826 Special Topics in Biostatistics and Biomedical Informatics Credits: 1 - 3
Covers advanced topics in the areas of biostatistics and biomedical informatics. Includes reading and discussion of original literature and individual student projects. Prereq: None
Typically Offered: Fall, Spring, Summer
B M I 841 Computational Cognitive Science Credits: 3
Studies the biological and computational basis of intelligence, by combining methods from cognitive science, artificial intelligence, machine learning, computational biology, and cognitive neuroscience. Prereq: Comp Sci 302 (or equivalent)
Typically Offered: Spring

B M I 877 Statistical Methods for Molecular Biology Credits: 3
Develop statistical problems in gene mapping, high throughputomic data analysis, phylogenetics and sequence analysis. Introduce ideas of key methods using published data. Statisticians learn statistical basis for research methodology. Collaboration among students and with biologists is encouraged through projects. Prereq: Stat 309-310 or 609-610 or 709-710 or equiv, or cons inst. Genetics 466 or equiv strongly recommended
Typically Offered: Every Other Spring

B M I 915 Computation and Informatics in Biology and Medicine Credits: 1
Participants and outside speakers will discuss current research in computation and informatics in biology and medicine. This seminar is required of all CIBM program trainees. Prereq: Cons inst
Typically Offered: Occasionally

B M I 918 Health Informatics for Medical Students Credits: 2
Explore medical informatics as a new way to practice medicine with applications to patient care, electronic medical records, and patient safety. Prereq: Basic computer literacy & 4th yr Med st or cons inst
Typically Offered: Occasionally

CELL AND REGENERATIVE BIOLOGY

CRB 610 Fundamentals of Mammalian Embryology Credits: 2
To provide graduate and advanced undergraduate students with a thorough grounding in the conceptual basis of mammalian development using the mouse (and sometimes other species) as a model system. Prereq: Undergraduates: 9 credit hours of introductory courses to Biological Sciences and consent of instructor; Junior Standing. Graduate Students: Matriculation in any Master's/Doctoral Program in Biology or Bioengineering, or consent of instructor
Typically Offered: Fall

CRB 630 Proteomics Approaches for Biologists Credits: 2
Proteomics and metabolomics are playing an increasingly important role in biology and medicine. Many biology labs are now starting to use proteomics and metabolomics in their research projects. This course is designed specifically for students in biological sciences who have interests to learn proteomics and metabolomics. It will integrate formal classroom lectures with one-on-one consultation. Lectures include the essential fundamentals and applications in mass spectrometry-based proteomics and metabolomics to address biological/medical problems. Meanwhile, one-on-one consultation will be offered to respond to students’ individual needs, including the design of proteomics/metabolomics exper
Typically Offered: Spring

CRB 640 Fundamentals of Stem Cell and Regenerative Biology Credits: 3
The course will provide a foundation to understand fundamental biological, mechanistic, and experimental concepts in the field of stem cell and regenerative biology. The course is designed for graduate students and advanced undergraduates with a significant background in one or more of the following fields: biochemistry, molecular biology and cell biology. Prereq: Biochem 507, Biochem 508, Genetics 566 or Zoology 570
Typically Offered: Spring

CRB 650 Molecular and Cellular Organogenesis Credits: 3
The course is intended for graduate and advanced undergraduate students interested in developmental biology, stem cell biology, molecular basis of normal organ formation, and biomedical engineering. This course will cover the most current knowledge of the basic principles of organogenesis including the molecular and cellular pathways leading to normal organ development and tissue regeneration. Tissue/organ specification, differentiation, and developmental processes, focusing on molecular and associated signal transduction pathways and transcriptional regulation will be covered in depth. Current understanding of the role of stem cells in normal and abnormal development and regenerative bio
Typically Offered: Spring
CRB 699 Independent Study Credits: 1 - 4
One-on-one learning experience allowing undergraduates to work with a faculty adviser to develop research projects and skills. Prereq: Instructor consent is required
Typically Offered: Fall, Spring, Summer

CRB 701 Cell Signaling and Human Disease Credits: 1
This course is intended for PhD and MSTP students interested in medically relevant basic science. Landmark discoveries, as well as current knowledge and controversies in human health, with an emphasis on cancer biology, will be covered. Prereq: Students must be enrolled in a PhD or MSTP program
Typically Offered: Spring

CRB 800 Intellectual Property, Patents and Licensing Credits: 2
This course presents important core concepts, including intellectual property, patent law, trademarks, copyrights, trade secrets, licensing and patent litigation, all specific to the field of biotechnology. You'll learn about the types of intellectual property and how they fit together to protect a product or service. You'll understand the fundamentals of licensing and technology transfer and the important role of patent examines. You'll also explore the unique aspects of early-stage intellectual property, including market dynamics, pricing and valuation. Prereq: Admission and enrollment in the Master of Science in Biotechnology Program
Typically Offered: Fall

CRB 802 Business of Biotechnology: Fundamentals of Product Development Credits: 2
The Business Fundamentals course is designed to give the Masters in Biotechnology students their first exposure to business principles as applied to the operation of biotechnology companies and serve as a foundation for the more advanced business curriculum. This course will lay the groundwork for students to fully appreciate the challenges inherent in translating scientific discoveries into a successful business. Prereq: Admission and enrollment in the M.S. in Biotechnology Program at UW-Madison
Typically Offered: Fall

CRB 803 Molecular Technologies I Credits: 2
An intensive workshop that will teach biotechniques, biotechnology product development, and biotechnology applications interfaced with analytical, communication and teaching skills. This workshop will simulate the corporate and academic biotechnology setting. Prereq: Admission into the M.S. biotechnology program
Typically Offered: Occasionally

CRB 804 Biotechnology Regulation and Ethics Credits: 2
Biotechnology Regulation & Ethics is designed as an introductory survey course of the political, legal, and ethical issues that have driven the development of the biotechnology industry. Special emphasis is given to FDA regulation of new drugs, devices, and biologics, and to federal regulation and ethics of human subjects research. Students should come away with an enhanced ability to understand how regulation and politics interact with business and finance to influence the formation and growth of biotechnology companies. Students will be introduced to the ethical issues that help shape public policy regarding applications of biotechnology. Prereq: Admission and enrollment in the M.S. in Biotechnology
Typically Offered: Fall

CRB 820 Biotechnology Operations Credits: 4
This course covers various operations within a biotechnology company. This includes regulatory affairs, quality control, clinical and nonclinical studies. Prereq: Admission into the M.S. biotechnology program
Typically Offered: Occasionally

CRB 824 Molecular Technologies II Credits: 3
An intensive workshop that will teach biotechniques, biotechnology product development, and biotechnology applications interfaced with analytical, communication and teaching skills. This workshop will simulate the corporate and academic biotechnology setting. Prereq: Admission into the M.S. biotechnology program
Typically Offered: Occasionally

CRB 830 Early Drug Discovery Credits: 4
Provides students with an overview of the early drug discovery process, including target identification and validation, generation of diverse chemical libraries, assay development and high throughput screening, lead optimization by compound profiling, and drug targeting and delivery. Prereq: Admission to M.S. in biotechnology
Typically Offered: Occasionally
CRB 834 Molecular Technologies III Credits: 1
Covers theory and applications of drug discovery. Laboratory assays and methods focus on primary, secondary, and ADMETox (absorption, distribution, metabolism, excretion, toxicity) drug screening. In addition, students build communication skills while working on team projects and reporting scientific results. Prereq: Admission to M.S. in biotechnology
Typically Offered: Occasionally

CRB 841 Business of Biotechnology: Contemporary Challenges and Applications Credits: 2
This course presents contemporary issues in the business of biotechnology where students apply concepts critical to the success of modern biotechnology firms. Topics focus on modern problem-solving, including issues relating to leadership and management, product development and negotiation and licensing. Prereq: Admission to M.S. in biotechnology
Typically Offered: Occasionally

CRB 990 Research and Thesis Credits: 1 - 9
Research and Thesis. Prereq: Grad student status, Instructor consent
Typically Offered: Fall, Spring, Summer

EMERGENCY MEDICINE

EMER MED 958 Introduction to Bedside Ultrasound Elective Credits: 2
The elective will focus on learning and practicing skills in clinical ultrasound (US) in the Emergency Department setting. Students will receive teaching in core clinical US skills including evaluation of the aorta, ECHO, gallbladder, renal, IVC, female pelvis, FAST, DVT, ocular, and lung exams. Students will then complete hands-on scanning with ultrasound-trained faculty focusing on the above areas of expertise. Students will also complete an image review for the scans they performed without faculty supervision, which will ensure students are acquiring and interpreting scans correctly. Students will be assessed both in image acquisition/interpretation for hands-on scanning and by online qui
Typically Offered: Fall, Spring

EMER MED 959 Emergency Medicine Regional Site Credits: 2 - 4
This course will provide students with an introduction to patient care in the emergency setting. The goals while on this rotation will be to 1) Increase knowledge and understanding of the role of Emergency Medicine in the broader healthcare system; and 2) Become familiar with the initial evaluation, assessment and stabilization of patients who present with urgent and emergent medical and traumatic conditions. Prereq: Surgery 812 or Medicine 812
Typically Offered: Fall, Spring, Summer

EMER MED 960 Emergency Medicine Elective - Basic Credits: 2
The Clerkship's emphasis is on learning and gaining clinical experience in the acute care setting. Students will be expected to evaluate and care for patients primarily with the guidance and supervision of the Emergency Medicine Attending or Senior Resident. You will "staff" all of your patients with the Attending, and will have the opportunity to perform various procedures with their assistance. The didactic structure of the rotation includes a suture lab, assigned reading materials, and the University of Wisconsin Emergency Medicine Residency Conference series. In addition, during certain months, students may participate in the simulation curriculum (2 hours weekly) alongside the Advanced
Typically Offered: Fall, Spring, Summer

EMER MED 961 Emergency Medicine Elective - Advanced Credits: 4
This Clerkship's emphasis is on building clinical expertise and gaining experience in the acute care setting. Students will be expected to evaluate and care for patients primarily with the guidance and supervision of the Emergency Medicine Attending or Senior Resident. You will "staff" all of your patients with the Attending or Senior EM Resident, and will have the opportunity to perform procedures on your patients, with expert supervision. The didactic structure of the rotation centers on a weekly simulation curriculum. Other learning venues include suture lab, assigned reading materials, and the University of Wisconsin Emergency Medicine Residency Conference series. Upon making a formal re
Typically Offered: Fall, Spring, Summer

FAMILY MEDICINE

FAM MED 699 Directed Study Credits: 1 - 12
Directed study projects as arranged with faculty member. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
FAM MED 701 Perspectives in Multidisciplinary Clinical & Translational Research Credits: 2
An overview of clinical investigation, including translational research; observational, experimental and quasi experimental designs; efficacy and effectiveness; behavioral and community interventions; qualitative methods; educational research; quality assurance; health economics; bioethics; pharmacotherapy trials; health disparities, and patents. Prereq: Introductory statistics course
Typically Offered: Fall

FAM MED 711 The Healer’s Art Credits: 1
The class explores relationship-centered care in the medical profession. Topics will include the importance of holistic self-care, methods of sharing, processing and responding to grief and the concepts of service and calling in medicine. Prereq: 1st yr Med st or cons inst
Typically Offered: Occasional

FAM MED 712 Health Care in Diverse Communities Credits: 1
This elective is an introduction to issues in health care provided in diverse communities. Topics include cultural issues in medicine, health disparities, cross-cultural communication, culture and resiliency, historical background and ethics, civil rights in practice and minority health care professionals. Prereq: Stds enrolled in a prof degree prgm & cons inst
Typically Offered: Occasional

FAM MED 910 Research and Independent Study Credits: 1 - 8
Prereq: SR MED 812 (Primary Care Clerkship)
Typically Offered: Occasionally

FAM MED 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 920 Clinical Clerkship in Family Medicine-Madison Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 921 Clinical Clerkship in Family Medicine-Appleton Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 922 Clinical Clerkship in Family Medicine-Eau Claire Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 923 Clinical Clerkship in Family Medicine-Wausau Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 926 Clinical Clerkship in Family & Community Medicine-Native American Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 927 Clinical Clerkship in Rural and Community Health Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 930 Clinical Clerkship in Family Medicine-St Lukes (Milwaukee) Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 931 Clinical Management of Addictive Disorders-Madison Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally
FAM MED 933 Sports Medicine Credits: 1 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 935 St Mary's Medical Center Family Medicine Sub-Internship Credits: 1 - 12
Elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

FAM MED 937 Family Medicine UW Hospital Sub-Internship Credits: 1 - 6
Service accepts patients for admission from the four Department of Family Medicine residency training clinics, as well as 12 community based Family Medicine clinics. The average service census is 11 patients. Prereq: Successful completion of the third year UWSMPH curriculum
Typically Offered: Fall, Spring

FAM MED 938 Hospice & Palliative Care Elective Credits: 4
This elective is designed to assist the students in developing a solid foundation of skills, knowledge, and attitudes needed to provide care for patients in a Hospice and Palliative Care setting. During this 4 week elective, students will have the opportunity to experience the variety of patient encounters found in this specialty. These experiences will vary between student and will encompass Hospice, Palliative, Residential, and Bereavement. Students will spend their time in the following locations: Unity, Residential (The Jack and Ingrid Meng Residence), and Bellin Memorial Hospital, The Cancer Team at Bellin Health, and Skilled Nursing and Residential Facilities. Prereq: Must be a 4th y
Typically Offered: Fall, Spring

FAM MED 939 HEART IM (Humanistic Elective in Activism, Reflective Transformation, and Integrative Medicine) Credits: 4
HEART (Humanistic Elective in alternative medicine, Activism, and Reflective Transformation) is an AMSA (American Medical Student Association) sponsored, month long elective for fourth-year medical students. Twenty-five medical students from across the nation will come together to live in an intentional community at a retreat center for the month of April each year in the California redwoods to explore the nature of healing, activism, self-care and personal reflection. Five medical student leaders are chosen through a competitive application process each year to organize the rotation under the guidance of a group of faculty mentors. Experts in integrative medicine, nutrition, humanism, non-v
Typically Offered: Spring

FAM MED 940 Community Based Care of the Elderly Credits: 2 - 4
Welcome to Community Based Care for the Elderly, an interdisciplinary geriatric teaching service. The nursing home is an ideal setting to teach geriatrics at the interface of hospital and home, where 45% of elderly spending some time of their life. Didactic lectures are followed by bedside rounds, where geriatric topics are applied. Exposure to geriatric community and clinic experiences round out the rotation. Prereq: Fourth Year Students: successful completion of Third Year curriculum Third Year Students: upon recommendation of course director
Typically Offered: Not Applicable

FAM MED 941 Integrative Medicine Credits: 4
This course involves shadowing physicians at the Integrative Medicine Consult Clinic. The student will spend time with holistic providers developing a plan for self-care, doing independent reading and a project (which often involves writing a patient handout or a supplement summary for clinicians). Activities and scheduling will be shaped around the student's areas of interest. Students can determine if they would prefer a general overview of integrative medicine or if they would like to focus on one or two areas of interest. An assigned faculty mentor will guide the process. Prereq: 4th year medical student standing
Typically Offered: Fall, Spring

HUMAN ONCOLOGY

H ONCOL 410 Radiobiology Credits: 2 - 3
Effects of ionizing radiations of living cells and organisms, including physical, chemical, and physiological bases of radiation cytotoxicity, mutagenicity, and carcinogenesis; lecture and lab. Prereq: None
Typically Offered: Spring

H ONCOL 501 Radiological Physics and Dosimetry Credits: 3
Interactions and energy deposition by ionizing radiation in matter; concepts, quantities and units in radiological physics; principles and methods of radiation dosimetry. Prereq: Calculus and modern physics
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall
H ONCOL 510 Topics in Oncology Credits: 1 - 3
As a topics course in human oncology, the topics will vary. Prereq: Undergrad basic math or physics or basic biology or pharmacology or M.D.
Typically Offered: Spring

H ONCOL 681 Senior Honors Thesis in Human Oncology 1 Credits: 3 - 4
Independent research in the area of human oncology including biology, medical physics, or clinical oncology. A written thesis is required in the final semester. Prereq: Senior standing and consent of instructor
Typically Offered: Fall, Spring

H ONCOL 682 Senior Honors Thesis in Human Oncology 2 Credits: 3 - 4
Independent research in the area of human oncology including biology, medical physics, or clinical oncology. A written thesis is required in the final semester. Prereq: Senior standing and consent of instructor
Typically Offered: Fall, Spring

H ONCOL 691 Senior Thesis in Human Oncology 1 Credits: 3 - 4
Independent research in the area of human oncology including biology, medical physics, or clinical oncology. A written thesis is required in the final semester. Prereq: Senior standing and consent of instructor
Typically Offered: Fall, Spring

H ONCOL 692 Senior Thesis in Human Oncology 2 Credits: 3 - 4
Independent research in the area of human oncology including biology, medical physics, or clinical oncology. A written thesis is required in the final semester. Prereq: Senior standing and consent of instructor
Typically Offered: Fall, Spring

H ONCOL 699 Independent Study in Human Cancer Biology Credits: 1 - 3
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

H ONCOL 812 Radiation Medicine Physics Clerkship Credits: 2
Allows students to observe and participate in the application of medical physics principles in the clinical setting. Under supervision, students will perform the functions of a clinical medical physicist in radiation medicine.
Prereq: Med Phys 501 & 566
Typically Offered: Occasionally

H ONCOL 910 Independent Reading and Research for Fourth Year Medical Students Credits: 1 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

H ONCOL 922 Radiation Oncology-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

H ONCOL 990 Research in Human Cancer Biology Credits: 1 - 12
Graduate thesis research. Prereq: Cons inst
Typically Offered: Occasionally

MEDICAL GENETICS

MD GENET 562 Human Cytogenetics Credits: 2
Fundamental principles of cytogenetics and special problems of human cytogenetics for biology and medical students. Prereq: Genetics/Bot/Zool 160 or 466 or Med Genet 721 or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MD GENET 565 Human Genetics Credits: 3
Principles, problems, and methods of human genetics. Surveys aspects of medical genetics, biochemical genetics, molecular genetics, cytogenetics, quantitative genetics, and variation as applied to humans. Prereq: Genet 466 or equiv or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall
MD GENET 620 Eukaryotic Molecular Biology Credits: 3
This course focuses on the basic molecular mechanisms that regulate DNA, RNA, and protein metabolism in eukaryotic organisms. This course is intended for advanced undergraduates and first year graduate students with a firm knowledge of basic biochemistry. Prereq: BIOCHEM 508
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MD GENET 629 Evolutionary Genetics Credits: 3
Basic principles of phylogenetics, population genetics and quantitative genetics including the construction of gene trees, forces affecting the amount and distribution of genetic variation in populations, and the inheritance and evolution of multifactorial characters. Prereq: Genetics 466 or Biocore 301 & 302 or equiv. Knowledge of intro calc & stats or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MD GENET 646 Cancer Genetics Risk Assessment and Counseling Credits: 2
The purpose of this course is to equip students with the background knowledge needed to provide cancer genetics counseling services. The information gained from the course will be put into practice during the second year cancer rotation, collectively preparing students for clinical practice. Students are provided with a background in cancer genetics from a medical, biological, and clinical perspective. The course includes: general principles and topics in oncology; familial cancers and cancer syndromes; and management, counseling, social, ethical, and legal issues. Prereq: Consent of instructor
Typically Offered: Spring

MD GENET 677 Advanced Topics in Genetics Credits: 1 - 3
Contents vary; consideration of subjects not included in the curriculum. Prereq: Cons inst or Grad st
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MD GENET 699 Independent Reading Credits: 1 - 3
Prereq: Cons inst & Sr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MD GENET 707 Genetics of Development Credits: 3
A research-level analysis of the current status of the investigation of processes controlling differential gene activity and cellular behavior. The major emphasis is genetic. In successive years, the focus moves from the gene to the cell to the organism. Prereq: Genetics 466 or equiv, Biochem 602 or equiv
Typically Offered: Occasionally

MD GENET 708 Methods and Logic in Genetic Analysis Credits: 3
Contemporary issues in genetic, developmental, cell, and molecular biology are addressed in a discussion format. Invited speakers give research lectures and reading material is taken from the primary literature. The discussion focuses on evaluating genetic approaches to biological problems. Prereq: Grad st, Genetics 701 or equiv
Typically Offered: Occasionally

MD GENET 713 Practicum in Genetics Counseling Credits: 3
Introductory practicum in genetics counseling, designed to acquaint the student with the basic practice skills required, protocols used, and professional issues in genetics counseling. Clinical experiences in a variety of specialty clinics provide opportunities for initial development of interviewing, data collection, and counseling skills. Prereq: Enrollment in MS Genetics Counseling Progm
Typically Offered: Occasionally

MD GENET 714 Practicum in Genetics Counseling Credits: 3
Second semester of the practicum in genetics counseling. Builds upon the first semester course (713) and provides additional opportunities to develop and improve skills in interviewing, data collection, case management and counseling. Prereq: Med Genet 713
Typically Offered: Occasionally

MD GENET 721 Molecular and Medical Genetics Credits: 3
General genetics principles, with emphasis on human and clinical genetics. Prereq: 1st yr st in Med Sch or cons inst
Typically Offered: Occasionally
Clinical manifestation of human genetic disorders, practical principles of genetic counseling; for students preparing for genetic counseling and other health care professions, e.g., nursing, physician's assistant, etc., in which they will encounter patients/families with genetically determined conditions, disorders, related problems, and prevention. Prereq: Genetics 466 or equivalent; Genetics 565 & 561 or 562; or consent of instructor. Some knowledge of basic medical terminology essential  
Typically Offered: Occasionally

MD GENET 737 Contemporary Professional Issues in Genetics Counseling Credits: 1  
A series of selected basic issues and topics that are core curricular requirements specific to genetics counseling. Relevant, non-redundant topics will be scheduled over four consecutive semesters. Prereq: Enrollment in Genetics Counseling Progm or consent of instructor  
Typically Offered: Occasionally

MD GENET 739 Literature Search Strategies and Analysis in Clinical Genetics Credits: 2  
Approaches to literature searching including computerized databases and information retrieval are covered. Methods are provided for the students to learn to read clinical literature critically, to recognize and assess biases and to understand the limits of currently available clinical genetics studies. Prereq: Enrollment in Genetic Counseling Progm in Dept of Med Genetics  
Typically Offered: Occasionally

MD GENET 742 Clinical Embryology and Prenatal Genetics Credits: 1  
Review human development (normal and abnormal) and the influence of genetic disorders and teratogens, common indications for prenatal genetic counseling as well as available prenatal diagnosis and screening techniques. This course prepares the genetic counseling student for the prenatal clinical practicum. Prereq: Declared in Genetic Counselor Studies Program  
Typically Offered: Occasionally

MD GENET 744 Applications of Biochemical Genetics for Genetic Counselors Credits: 2  
This course will introduce to the genetics counseling trainee applications of biochemical and molecular diagnostic tests in clinical practice and will review the major classes of inborn errors of metabolism. Prereq: Enrollment in Genetic Counseling Progm in Dept of Med Genetics  
Typically Offered: Occasionally

MD GENET 813 Advanced Practicum in Genetics Counseling Credits: 4  
A two semester program of clinical experiences which explores some of the pertinent professional issues in genetics counseling. The clinical experiences consist of four eight-week rotations which provide many opportunities for trainees to work toward perfecting skills in counseling, interviewing, data collection, case coordination and ongoing follow-along of genetics families. Prereq: Med Genet 713 & 714  
Typically Offered: Occasionally

MD GENET 814 Advanced Practicum in Genetics Counseling Credits: 4 - 5  
The second of a two semester sequence of clinical experiences and didactics which provides opportunities for trainees to obtain professional competency in counseling, interviewing, and case coordination; to explore professional boundaries and limits; and learn strategies to develop a self-reflective practice. Prereq: MD GENET 813  
Typically Offered: Occasionally

MD GENET 888 Public Health Genomics Credits: 1  
Public health genomics uses knowledge gained from genetic and molecular research along with a consideration of ethical, legal, and social implications (ELSI) to prevent disease and improve the health of the population. Students enrolled in this course will be provided an introduction to public health genomics through a review of fundamental principles of genetics, followed by lectures and discussions on the use of genetic information in clinical and research settings and its implications for disease management and prevention. Students will also gain an awareness of policies that guide public health and will be able to discuss current ethical, legal, and social implications of these policies.  
Typically Offered: Spring

MD GENET 990 Research Credits: 1 - 12  
Prereq: Cons inst  
Typically Offered: Occasionally
MD GENET 993 Seminar in Genetics Credits: 0 - 1
Sections deal with various aspects of genetics: Drosophila, maize, immunogenetics, developmental genetics, or other special topics. Students may enroll in two or more sections if they wish. Prereq: Grad st & cons inst
Typically Offered: Occasionally

MD GENET 999 Independent Work Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

MEDICAL HISTORY AND BIOETHICS

MED HIST 133 Biology and Society, 1950 - Today Credits: 3
From medical advancements to environmental crises and global food shortages, the life sciences are implicated in some of the most pressing social issues of our time. This course explores events in the history of biology from the mid-twentieth century to today, and examines how developments in this science have shaped and are shaped by society. In the first unit, we investigate the origins of the institutions, technologies, and styles of practice that characterize contemporary biology, such as the use of mice as "model organisms" for understanding human diseases. The second unit examines biological controversies such as the introduction of genetically modified plants into the food supply. Th
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 212 Bodies, Diseases, and Healers: An Introduction to the History of Medicine Credits: 3
A survey of different conceptions of how the body as a site of sickness has been understood from Antiquity to contemporary medicine. Includes consideration of the origins and evolution of public health, the changing social role of healers, and the emergence of the modern "standardized" body in health and illness. Prereq: Open to Freshmen. For honors credit consent required in Hist Sci/Hist Med 284 or consent of instructor
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 213 Global Environmental Health: An Interdisciplinary Introduction Credits: 3
The course provides an introduction to the intersections of health and environment on a global scale. Exposes students to a range of problems in global environmental health, including climate change, disease ecology, and the globalization of disease. Prereq: None
L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 218 History of Twentieth Century American Medicine Credits: 3
This undergraduate lecture course introduces students to the development of the modern American medical care system. Prereq: Open to Fr
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MED HIST 275 Science, Medicine, and Race: A History Credits: 3
Surveys the medical and scientific constructions of categories of race, placing the development of racial theories in a broad social and political context. The course will pay particular attention to the importance of racial science in slavery and colonialism. Prereq: Open to Fr
Ethnic Studies: Yes  L&S Breadth: Humanities or Soc Sci  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MED HIST 284 Physician in History (Honors) Credits: 1
Honors course for students enrolled concurrently for honors in History of Science 212. Open to non-honors students with consent of instructor. Prereq: Con reg for honors in Hist Sci/ Hist Med 212 or cons inst. Open to Fr
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 286 Honors Seminar: Studies in Medical History Credits: 3
Intensive exploration of issues in medical history. Emphasis on developing critical thinking about medical history through discussion of readings, written exercises, and research projects. Prereq: Declared in an honors program
L&S Breadth: Humanities  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 331 Science, Medicine and Religion Credits: 3 - 4
Science, medicine and religion from antiquity to the present, with emphasis on Western civilization. Prereq: Jr st and cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally
MED HIST 333 History of Modern Biology  Credits: 3
Survey of major developments in biology and related sciences ca. 1700-1950. Topics include morphology and embryology; evolutionary theory, ecology, and genetics; physiology and recent experimental biology.  Prereq:  Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 394 Science in America  Credits: 3
From the colonial period to the present; emphasis on the development of scientific institutions and the influence of science on American life.  Prereq:  Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MED HIST 431 Childbirth in the United States  Credits: 3
American women's childbirth experiences from the colonial period to the present. Childbirth as a cultural as well as a biological event. Basic physiological information for understanding and evaluating changing approaches to pregnancy and childbirth.  Prereq: Women St 103 or 430 or equiv; or cons inst
L&S Breadth: Social Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 504 Society and Health Care in American History  Credits: 3
Lecture-seminar. Health care in America since the colonial period; emphasis on social developments.  Prereq:  Jr st & cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 505 Justice and Health Care  Credits: 3
Examines ethical issues in the distribution, financing, and delivery of health care (primarily in the United States). The first third of the class explores key issues in U.S. health policy and forms the empirical foundation for the rest of the class. The second third explores ongoing debates in moral and political philosophy over putative entitlements to health and health care. The last third investigates the nature, justifiability, and methods of health care rationing, including bedside rationing by doctors, and the myriad issues implicated by the near-universally shared goal of health care cost containment.  Prereq:  Junior, Senior or Graduate standing
L&S Breadth: Humanities  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 507 Health, Disease and Healing I  Credits: 3 - 4
Medicine in Europe from antiquity to the 18th century, investigating changes in medical ideas, institutions, practices, and organization.  Prereq:  Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 508 Health, Disease and Healing II  Credits: 3 - 4
Medicine in Europe from the 18th century to mid-20th century, investigating changes in disease and demography, state interest in health care, the medical professions, and both scientific and alternative medical ideas.  Prereq:  Jr st
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 509 The Development of Public Health in America  Credits: 3
Seminar. Health problems in the U.S. from the colonial period to the twentieth century; efforts made toward their solutions.  Prereq:  Jr st & cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 513 Environment and Health in Global Perspective  Credits: 3
Explores the historical relationships between environmental change and human health from the 17th through the 20th century. Topics include colonialism and disease, medical geography, urban pollution and reform, workplace hazards, environmental risk, and the anti-toxics and environmental justice movements.  Prereq:  Jr st
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring
MED HIST 515 Public Health Ethics Credits: 3
Focuses on ethical issues implicated in a population-level approach to disease prevention and health promotion. Explores prominent theoretical approaches to public health ethics and engages with several ethical tensions. Issues discussed can include: the use of coercive or intrusive public health interventions that restrict individual freedom, infringe upon individual privacy, and/or invite individual harm (or risks of harm); the justification of paternalistic measures in societies or sub-populations that seemingly indulge in pleasurable yet unhealthy behaviors; the extent to which societies should hold individuals responsible for their health conditions; the need to decide who receives L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

MED HIST 523 Race, American Medicine and Public Health Credits: 3
The course will provide historical perspectives on current dilemmas facing black patients and health care professionals. Prereq: Jr or Sr st Ethnic Studies: Yes L&S Breadth: Social Science L&S Level: Intermediate/Advanced L&S Credit: Counts for LAS credit Typically Offered: Occasionally

MED HIST 524 The Medical History of Sex and Sexuality Credits: 3
Examines the changing place of medicine and scientific authority in public and private sexual lives. Highlights the role of medicine in defining appropriate sexual behavior, understanding the cause of sexual deviance, and treating sexual problems and diseases. Prereq: Prev history (incl med hist & hist sci) crse preferred L&S Breadth: Humanities L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MED HIST 526 Medical Technology and the Body Credits: 3
Ethical and cultural dimensions of chemical, surgical and biological therapeutics and enhancements to the human body. Explores body-altering technologies within cultural understandings of appearance, function, perception and identity. Prereq: So st or cons inst L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MED HIST 531 Women and Health in American History Credits: 3
Women as patients and as health professionals in America from the colonial period to the present. Prereq: Jr st & cons inst L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

MED HIST 532 The History of the (American) Body Credits: 3
This course demonstrates that human bodies have social and cultural histories. It will highlight the social values placed on different bodies, the changing social expectations bodies create, and the role of science and medicine in creating the cultural meanings of bodies. Prereq: Women St 103 or other women's studies crse required; prev hist (incl med hist & hist sci) crse preferred L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MED HIST 543 Doctors and Delusions: Madness and Medicine in the Modern Era Credits: 3
Medical approaches to mental illness from 1750 to the present. Emphasis on how tension between biomedical and socio-environmental theories about psychopathology have marked modern psychiatry. Focus on Europe and the United States with global and comparative dimensions. Prereq: Jr st or cons inst L&S Breadth: Humanities or Soc Sci L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

MED HIST 545 Ethical and Regulatory Issues in Clinical Investigation Credits: 1
This course will explore and examine the ethical issues central to clinical research, regulations governing clinical investigation, and the role of good clinical practice for clinical trials. L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MED HIST 550 Medical Technologies in Historical Perspective Credits: 3
Focusing upon the 18th- to 21st-century U. S. and building upon earlier European history, the course explores the ways that a range of technologies - e.g. stethoscopes, spirometers, x-rays, hospital design, pharmaceuticals, gene and cell therapies, telemedicine, etc. - have shaped medicine and invited social critique. Prereq: Junior/Senior standing or consent of instructor L&S Breadth: Humanities L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall
MED HIST 553 International Health and Global Society Credits: 3
Major problems in international health from 1750 to the present. Focus on disease epidemiology and ecology; political economy of health; migration; quarantine; race, ethnicity, and health care; international health research; cross-cultural healing; mental and maternal health; growth of international health organizations. Prereq: Jr or Sr st, or cons inst
L&S Breadth: Humanities or Soc Sci  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MED HIST 554 A History of Western Disability Credits: 3
Offers a wide range of arguments about the nature of disability, from pre-history to the 21st century. Explores the history of disability in Western thought and practice and the formulation of personhood, citizenship, and social well being. Prereq: None
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 558 Ethical Issues in Health Care Credits: 3
Ethical issues apparently created by new biomedical technologies, such as genetic screening, prenatal diagnosis, prolongation of life, treatment of severe birth defects, in vitro fertilization, behavior modification, psychosurgery, and transplantation. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 559 Topics in Ethics and History of Medicine Credits: 3
A survey of ethical and social issues in medical ethics and history of medicine. Cooperating faculty may be drawn from philosophy, law, medical ethics, history, political science, public health, economics, education, and communication, as well as medicine and the biological sciences. Prereq: Consent of instructor; enrollment may be limited depending on topic and approach
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MED HIST 561 Greek and Roman Medicine and Pharmacy Credits: 3
Greek and Roman medicine and drug lore from the Pre-Socratics to Oribasius (c. 600 B.C. - A.D. 350), including the backgrounds of ancient Egyptian and Mesopotamian medicine. Prereq: Jr or Sr st, or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MED HIST 562 Byzantine Medicine and Pharmacy Credits: 3
Byzantine and Islamic medicine and drug lore from Oribasius to the beginnings of the Italian Renaissance (c. 350 - c. 1400 A.D.). Prereq: Jr or Sr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 564 Disease, Medicine and Public Health in the History of Latin America and the Caribbean Credits: 3
This course examines the history of illness and medical practice in Latin America and the Caribbean from the colonial era until the present. Using an interdisciplinary set of sources, students will explore the different meanings of disease, body normativity, medical practice, and ideas about public health across different historical circumstances in the region. Prereq: Junior standing or above. Include Graduate and Professional level
L&S Breadth: Humanities or Soc Sci  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MED HIST 565 The Ethics of Modern Biotechnology Credits: 3 - 4
Study of ethical issues arising from the application of modern biotechnology to microorganisms, crops, and non-human animals. Readings cover moral theory, technology studies, political philosophy, the science used in biotechnology, and current regulations governing its use. Prereq: Jr st & cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED HIST 610 Regenerative Medicine Ethics and Society Credits: 1 - 3
Study of regenerative medicine and stem cell research within social, ethical and political contexts. Prereq: Grad st and permission of instructor (3 credit). Grad st (1 credit)
Typically Offered: Fall, Spring

MED HIST 668 Topics in History of Medicine Credits: 3
Upper-level special topics course in the history of medicine. Prereq: Jr st
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MED HIST 699 Independent Study in Medical History Credits: 1 - 3
Prereq: Jr st & cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
MED HIST 708 Health, Disease and Healing II Credits: 1
Advanced readings in primary and secondary literature concerning medicine in Europe from the 18th century to mid-20th century, investigating changes in disease and demography, state interest in health care, and medical professions, and both scientific and alternative medical ideas. Prereq: Grad st & con reg in Med Hist 508
Typically Offered: Occasionally

MED HIST 709 Development of Public Health in America Credits: 1
Advanced readings in primary and secondary literature concerning public health issues and problems in America from the eighteenth to the twentieth century, and efforts made toward their solutions. Prereq: Grad st & con reg in Med Hist 509
Typically Offered: Occasionally

MED HIST 713 Studies in Environment and Health Credits: 1
Advanced readings in primary and secondary literature of environment and health, with emphasis on current historiographic issues. Prereq: Grad st, or con reg in Hist Med 513 or cons inst
Typically Offered: Occasionally

MED HIST 720 Historical Perspectives in Medicine Credits: 1
(Med I elective) Lecture-seminar. Contemporary medical issues in a historical context. Prereq: Open to 1st yr Med stdts in their 2nd sem
Typically Offered: Occasionally

MED HIST 726 Medical Technology and the Body Credits: 1
Ethical and cultural dimensions of chemical, surgical and biological therapeutics and enhancements to the human body. Explores body-altering technologies within cultural understandings of appearance, function, perception and identity. Prereq: Grad st & con reg in Med Hist 526 or cons inst
Typically Offered: Occasionally

MED HIST 728 Biomedical Ethics and Society Credits: 1 - 3
Social science perspectives on medicine with emphasis on biomedical ethics. Overview of the qualitative research methods of ethnography, life history, content, visual and narrative analysis. Prereq: Grad st. One of the following: Anthro 365, Soc 531, Pop Hlth 780 or equivs, or cons inst
Typically Offered: Occasionally

MED HIST 730 Ethical Issues in Medicine Credits: 1
Seminar-discussions. Problems: abortion, prenatal diagnosis, genetic screening, euthanasia, definition of death, experimentation, and patients' rights. Prereq: Open to all 4th yr Med students (8 or 16 wks) as an elective
Typically Offered: Occasionally

MED HIST 734 Graduate Studies in Medical Ethics Credits: 1 - 3
Prereq: Grad st or cons inst
Typically Offered: Occasionally

MED HIST 743 Doctors and Delusions: Madness and Medicine in the Modern Era Credits: 1
Advanced readings in primary and secondary literature of the history of psychiatry, with emphasis on historiographical issues. Prereq: Grad st & con reg in Med Hist 543, or cons inst
Typically Offered: Occasionally

MED HIST 753 International Health and Global Society Credits: 1
Advanced readings that examine major problems in modern international health. Focus on epidemiology and disease ecology; political economy of health; migration; quarantine; international health research; cross-cultural healing; mental and maternal health; growth of international health organizations. Prereq: Grad st & con reg in Med Hist 553
Typically Offered: Occasionally

MED HIST 890 Reading and Research Credits: 1 - 3
Prereq: Open to all 4th yr Med stdts (8 or 16 wks) & Grad stdts of all other depts (16 wks)
Typically Offered: Occasionally

MED HIST 915 Seminar: Science in America Credits: 3
Prereq: Grad st
Typically Offered: Occasionally
MED HIST 919 Graduate Studies in Medical History Credits: 3
Three seminars analyzing the scientific and social aspects of the development of modern medicine in Europe and America; one seminar exclusively on public health. Prereq: Grad st and cons inst
Typically Offered: Occasionally

MED HIST 999 Advanced Independent Study Credits: 1 - 3
Prereq: Grad stdts who have the Masters or equiv, or Postdoc fellows who wish to undertake an indep res project
Typically Offered: Occasionally

MEDICAL MICROBIOL & IMMUNOLOGY

M M & I 301 Pathogenic Bacteriology Credits: 2
Lectures on medically important bacteria, emphasizing the process of pathogenesis and host-parasite interactions, as well as intervention strategies, immunity and genetics as they apply to the pathogens. Open to non-majors. Prereq: MM&I 341 (or con reg), 2 sem intro biol w/lab or Biocore series 301-304; 1 sem org chem; or cons inst
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

M M & I 302 Medical Microbiology Laboratory Credits: 3
Lab covering procedures and aseptic techniques for isolation and identification of pathogenic microorganisms (bacteria, fungi, and viruses). Prereq: 2 sem intro biol w/lab or Biocore series 301-304; prev or con reg in MM&I 301 or equiv
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Not Applicable

M M & I 341 Immunology Credits: 3
Lecture, discussion. An introduction to the immune response to infectious disease. Examines the role of the host in host-parasite relationships using select microbial agents or antigens to illustrate the nonspecific and specific mechanisms of host defenses. Includes study of the nonspecific inflammatory response, the nature of microbial antigens, current concepts of antibody and cell-mediated immune reactions to infectious agents and the principles underlying the development of vaccines. Prereq: HS biol, chem, 1 sem of college biol; So st; to receive cr for both MM&I 341 & 528, MM&I 341 must be completed first
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

M M & I 350 Parasitology Credits: 3
The biology of water-borne, food-borne, soil-borne and vector-borne parasites of animals including humans. Parasites are explored in the context of transmission, associated disease, diagnosis and treatment options, and environmental, cultural and socioeconomic drivers of disease epidemiology. Prereq: BIOLOGY/ZOOLOGY 101 and 102, or BIOLOGY/BOTANY/ZOOLOGY 152 or ZOOLOGY 153, or BIOCORE 381
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

M M & I 351 Parasitology Laboratory Credits: 2
Optional laboratory component of Zoology/Med Micro/AHABS 350. Emphasis on experiments involving live animal parasites, including: trematodes, tapeworms, gapeworms, hookworm, ascarids, trichina, filaria, trypanosomes, coccidia, and malaria. Prereq: Zoology/MM/I/AHABS 350 or con reg
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

M M & I 410 Medical Mycology Credits: 2
Lectures and discussions. Pathogenesis, molecular biology, host-parasite interactions, immunology, epidemiology, and diagnosis of systemic, subcutaneous, and superficial fungal infections. Prereq: 2 sem intro biol w/lab or Biocore series 301-304; a crse in immunology or cons inst
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

M M & I 412 Medical Mycology Laboratory Credits: 1
Laboratories and discussions on the ecology, sample collection, culture techniques and identification of medically important mycotic microorganisms. This is a companion lab to MM&I 410. Priority given to MM&I majors. Prereq: MM&I 301 & 302 & con reg in MM&I 410
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
M M & I 460 Techniques in DNA Science for Microbiologists Credits: 3
Introduction to recombinant DNA techniques commonly used in prokaryotic research and clinical Microbiology
laboratories. Topics include DNA isolation, agarose gel electrophoresis, restriction enzyme digestion of DNA,
ligation, transformation, Southern blotting and PCR. Students are required to work independently. Prereq:
Junior standing, Chem 327 or Chem 329 or Chem 116, Microbiology lecture and lab, and consent of instructor
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Summer

M M & I 528 Immunology Credits: 3
Development and functions of immune response in animals; a comprehensive study of experimental humoral and
cellular immunity. Prereq: Two sem chem and one sem zoology or gen biology
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M M & I 529 Immunology Laboratory Credits: 2
Selected techniques illustrating concepts of cellular and humoral immunity as a supplement to Immunology 528.
Prereq: Two sem of chem and one sem of zoology or gen biology. Jr or Sr st; cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M M & I 554 Emerging Infectious Diseases and Bioterrorism Credits: 2
Identification of analysis and solution of emerging infectious disease problems and the problems of bioterrorism.
Prereq: Proposed prerequisites and other requirements Completion of Biology 152 or Zoology 101 or Biocore
383 and MM&I 301 or Microbiology 101 or Microbiology 303; or Grad standing; or consent of instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M M & I 555 Vaccines: Practical Issues for a Global Society Credits: 3
Considers innovative approaches to the development and use of vaccines in the past, today and in the future,
including the public health impact and the economic, ethical and safety issues associated with vaccine
development, licensing and use. Prereq: Senior or Graduate standing; MM&I 341 or MM&I 528
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Spring

M M & I 575 Biology of Viruses Credits: 2
Lecture-discussion. Broad coverage of animal virology taught at molecular level. Topics include virus structure,
viral replication/lifecycle, aspects of pathogenesis and prevention. Prereq: Biocore 301/302, or AP score of 4 or
5 and Zoology 151 or 152; or MM&I 301
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M M & I 603 Clinical and Public Health Microbiology Credits: 5
Lecture-seminar sessions. Lectures (44) describe microorganisms of clinical and public health significance.
Seminar sessions (14) discuss issues and controversies of specimen receiving and processing, bacteremia,
serodiagnosis of infectious agents, antimicrobial susceptibility testing, laboratory management, and novel
approaches to detect infectious agents. Prereq: A course in microbiology
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

M M & I 655 Biology and Genetics of Filamentous Fungi Credits: 3 - 4
Fungal genetics, genomics, and physiology using plant pathogenic fungi and the genetic models Aspergillus
nidulans and Neurospora crassa as model systems to explore the current knowledge of fungal genetics and
plant/fungal interactions. Prereq: Cons inst; PI Path 300 & 332 recommended; Genetics 466 or equiv; general
microbiol crse
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Every Other Fall

M M & I 677 Advanced Topics in Medical Microbiology Credits: 1 - 3
Lectures on a specialized topic of current interest in medical microbiology. Course content will vary with instructor.
Prereq: Grad st or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

M M & I 691 First Semester Senior Thesis Credits: 3
First semester independent study with the goal to do the preliminary research to write a senior thesis in Medical
Microbiology & Immunology. Prereq: Senior Standing; Consent of Instructor
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
M M & I 692 Second Semester Senior Thesis Credits: 3
Second semester independent study with the goal to complete a senior thesis in Medical Microbiology & Immunology. Prereq: Senior Standing; Consent of Instructor, MM&I 691
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

M M & I 696 Critical Thinking in Medical Microbiology and Immunology Credits: 3
Students will present assigned research papers from journals for critical evaluation by the class. In addition, students will write critiques of each paper evaluating the paper's introduction, methods, results, and discussion sections. Prereq: MM&I 301 & 341, or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M M & I 699 Directed Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

M M & I 701 Infection and Immunity I Credits: 4
Part I of an integrated course of basic microbiology, immunology, and infectious diseases; includes bacteriology, virology, mycology, parasitology, basic and clinical immunology. Prereq: 2nd yr Med st only
Typically Offered: Occasionally

M M & I 704 Infectious Diseases of Human Beings Credits: 3
Pathogenesis, clinical descriptions, and prevention. Primarily for Physician Assistant, Pharmacy, and Nursing students. Prereq: A course in microbiology
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

M M & I 710 Cell Structure and Function Credits: 3
An interdisciplinary course that highlights structure and function at the cellular level as related to health and disease states. Prereq: Med student
Typically Offered: Occasionally

M M & I 720 Advanced Immunology: Critical Thinking Credits: 3
Advanced course focusing on current questions in immunological research. Course explores immunology topics including genetic, cellular, and molecular features of immune system fundamental to regulation of immune responses. Course format: discussion of research articles and exposure to research seminars. Prereq: MM&I/AHABS/Bact 528 or equiv
Typically Offered: Every Other Fall

M M & I 740 Mechanisms of Microbial Pathogenesis Credits: 3
Lecture-discussion. Host-pathogen relationships in microbial diseases. Entry level course for infectious diseases sequence (see Med Micro 760, 790). Prereq: Cons inst, MM&I 301 or equiv & a course in immunology
Typically Offered: Fall

M M & I 750 Host-Parasite Relationships in Vertebrate Viral Disease Credits: 3
Lecture. Detailed study of the pathogenesis of vertebrate viral disease, stressing viral invasion, dissemination, mechanisms of disease production and resistance, and transmission. Prereq: Oncol/Microbio 640 or Path-Bio 513; and Microbio/MM&I/Path-Bio 528; or consent of instructor
Typically Offered: Occasionally

M M & I 755 Foundations of Medicine 2 Credits: 3
Addresses the basic principles of medical microbiology and the infectious diseases involving the cardiovascular, respiratory, renal and dermatologic systems and related any-microbial therapies. Prereq: Standing as med 2 student (completion of year 1 Medical School curriculum)
Typically Offered: Fall

M M & I 773 Eukaryotic Microbial Pathogenesis Credits: 3
An advanced course focusing on the molecular, cellular and biochemical mechanisms found in fungal and protozoan pathogens of humans. A combination of lectures and student presentations will be employed. Prereq: Cons inst. MM&I 740 & Path 750 recommended
Typically Offered: Occasionally
M M & I 790 Immunology of Infectious Disease Credits: 3
Immunobiology and immunogenetics of resistance to infectious disease agents of man and animals; immunoregulatory mechanisms associated with evasion of host immunity. Prereq: MM&I 720 or equiv, MM&I 740 or equiv, & cons inst
Typically Offered: Occasionally

M M & I 810 Current Issues in Microbiology Credits: 1
Required course for first-year Ph.D. graduate students in the Microbiology Doctoral Training Program (MDTP); combines faculty lectures, review of primary literature, student presentations, and small group discussions to explore the diversity of scientific topics comprising the field of contemporary microbiology. Prereq: 1st yr st in Microbiol Doctoral Training Progm
Typically Offered: Occasionally

M M & I 900 Journal Club Credits: 1
Prereq: Cons inst
Typically Offered: Occasionally

M M & I 901 Seminar Credits: 1
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

M M & I 914 Seminar-Molecular Biosciences (Advanced) Credits: 1
During the fall semester, molecular biosciences trainees who have not achieved dissertator status will present seminars based primarily on literature related to their projects. During the spring semester, molecular biosciences trainees with dissertator status will present seminars based upon their own research. Prereq: None
Typically Offered: Fall, Spring, Summer

M M & I 990 Research and Thesis Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

MED PHYS 265 Introduction to Medical Physics Credits: 2
Primarily for premeds and other students in the medical and biological sciences. Applications of physics to medicine and medical instrumentation. Topics: biomechanics, sound and hearing, pressure and motion of fluids, heat and temperature, electricity and magnetism in the body, optics and the eye, biological effects of light, use of ionizing radiation in diagnosis and therapy, radiation safety, medical instrumentation. Two lectures with demonstrations per week. Prereq: A yr crse of college level intro physics
L&S Breadth: Physical Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MED PHYS 410 Radiobiology Credits: 2 - 3
Effects of ionizing radiations of living cells and organisms, including physical, chemical, and physiological bases of radiation cytotoxicity, mutagenicity, and carcinogenesis; lecture and lab. Prereq: None
Typically Offered: Spring

MED PHYS 501 Radiological Physics and Dosimetry Credits: 3
Interactions and energy deposition by ionizing radiation in matter; concepts, quantities and units in radiological physics; principles and methods of radiation dosimetry. Prereq: Calculus and modern physics
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

MED PHYS 506 Monte Carlo Radiation Transport Credits: 3
Use of Monte Carlo technique for applications in nuclear engineering and medical physics. Major theory of Monte Carlo neutral particle transport is discussed. Standard Monte Carlo transport software is used for exercises and projects. Major emphasis is on analysis of real-world problems. Prereq: NEEP 305 or equiv and one of NEEP 405, 408, Med Phys 501 or 569, or consent of instructor
L&S Breadth: Physical Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring
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<tr>
<th>Course Code</th>
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<tr>
<td>MED PHYS 530</td>
<td>Medical Imaging Systems</td>
<td>3</td>
<td>2D Fourier image representation, sampling, and image filtering with applications in medical imaging. Principles of operation, impulse responses, signal-to-noise, resolution and design tradeoffs in projection radiography, tomography, nuclear medicine, ultrasound, and magnetic resonance imaging. Prereq: ECE 330 or Med Phys 473 or equiv or cons inst. Knowledge of linear signals &amp; systems, convolution, basic probability, ID Fourier Transforms. Typically Offered: Spring</td>
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<tr>
<td>MED PHYS 535</td>
<td>Introduction to Energy-Tissue Interactions</td>
<td>3</td>
<td>Explore physical interactions between thermal, electromagnetic and acoustic energies and biological tissues with emphasis on therapeutic medical applications. Prereq: Graduate student or senior level in Engineering or Medical Physics or consent of instructor. Typically Offered: Fall</td>
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<tr>
<td>MED PHYS 559</td>
<td>Patient Safety and Error Reduction in Healthcare</td>
<td>2</td>
<td>Techniques for evaluating and reducing risks in medical procedures, including probabilistic risk assessment methods, failure mode and effects analysis, human factors analysis, and quality management. Discussions of patient safety standards, recommendations from agencies, and continual quality improvement. Prereq: Jr st or cons inst. L&amp;S Level: Intermediate L&amp;S Credit: Counts for LAS credit Typically Offered: Spring</td>
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<tr>
<td>MED PHYS 563</td>
<td>Radionuclides in Medicine and Biology</td>
<td>2 - 3</td>
<td>Physical principles of radioisotopes used in medicine and biology and operation of related equipment; lecture and lab. Prereq: Physics 205, Physics 241, or Physics 249, or Graduate Standing. L&amp;S Breadth: Physical Science L&amp;S Level: Intermediate L&amp;S Credit: Counts for LAS credit Typically Offered: Fall</td>
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<tr>
<td>MED PHYS 567</td>
<td>The Physics of Diagnostic Radiology</td>
<td>4</td>
<td>Physics of x-ray diagnostic procedures and equipment, radiation safety, general imaging considerations; lecture and lab. Prereq: Modern physics, calculus, and Fourier analysis, or consent of instructor. L&amp;S Breadth: Biological Science L&amp;S Level: Intermediate L&amp;S Credit: Counts for LAS credit Typically Offered: Fall</td>
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<tr>
<td>MED PHYS 568</td>
<td>Magnetic Resonance Imaging (MRI)</td>
<td>3</td>
<td>Physics and technology of magnetic resonance imaging (MRI), emphasizing techniques employed in medical diagnostic imaging. Major topics: physics of MR, pulse sequences, hardware, imaging techniques, artifacts, and spectroscopic localization. Prereq: Crses in mod physics &amp; calc, incl Fourier Anal, req. Crses in other med imaging tech e.g. Med Phys 567, &amp; crses in signal processing, or Med Phys 573 recommended. Typically Offered: Spring</td>
</tr>
<tr>
<td>MED PHYS 569</td>
<td>Health Physics and Biological Effects</td>
<td>3 - 4</td>
<td>Physical and biological aspects of the use of ionizing radiation in industrial and academic institutions; physical principles underlying shielding instrumentation, waste disposal; biological effects of low levels of ionizing radiation; lecture and lab. Prereq: Consent of instructor. Typically Offered: Spring</td>
</tr>
<tr>
<td>MED PHYS 570</td>
<td>Advanced Brachytherapy Physics</td>
<td>3</td>
<td>The use of radioactive sources for radiotherapy including: materials used, source construction dosimetry theory and practical application, dosimetric systems, localization and reconstruction. The course covers low dose rate, high dose rate and permanently placed applications. Prereq: Med Phys 501&amp; 566 or equiv. Typically Offered: Spring</td>
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<tr>
<td>MED PHYS 571</td>
<td>Advanced External Radiation Oncology Physics</td>
<td>3</td>
<td>Physics of ionizing radiation therapy with emphasis on external beam dosimetry and treatment planning. Prereq: Med Phys 501 &amp; 566. Typically Offered: Fall</td>
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</tbody>
</table>
MED PHYS 572 Advanced Radiation Treatment Planning Credits: 3
Physics of clinical, computer-based radiotherapy planning is taught. Topics include dose algorithms, measurement data, commissioning, contouring and volume definition, beam placement, modifiers and apertures and plan evaluation. Forward based and inverse planning (including IMRT optimization) are taught. Prereq: Med Phys 501 and Med Phys 566
Typically Offered: Fall

MED PHYS 573 Medical Image Science: Mathematical and Conceptual Foundations Credits: 3
The conceptual and mathematical foundations of medical imaging, including both deterministic and stochastic aspects. Prereq: 1 yr each of undergrad physics & calc or cons inst
Typically Offered: Fall

MED PHYS 574 Imagine in Medicine: Applications Credits: 3
Continuation of 573, with application of concepts to practical medical imaging problems and emerging quantitative imaging techniques. Prereq: Med Phs/BME 573 or cons inst
Typically Offered: Spring

MED PHYS 575 Diagnostic Ultrasound Physics Credits: 2 - 3
Propagation of ultrasonic waves in biological tissues; principles of ultrasonic measuring and imaging instrumentation; design and use of currently available tools for performance evaluation of diagnostic instrumentation; biological effects of ultrasound. Prereq: Modern physics, calculus & Fourier analysis or consent of instructor
Typically Offered: Fall

MED PHYS 577 Principles of X-ray Computed Tomography Credits: 3
Provides a basic foundation of x-ray computed tomography (CT) for those who are interested in the principles and applications of CT in Medical Physics. Focuses on the physics of CT, system design, image artifacts, and recent advances in CT techniques. Prereq: Grad st; Modern physics, calculus, and Fourier analysis, or cons inst
Typically Offered: Fall

MED PHYS 578 Non-Ionizing Diagnostic Imaging Credits: 3
This is a graduate level core course covering the physics associated with magnetic resonance imaging and diagnostic ultrasound emphasizing techniques employed in medical diagnostic imaging. Major MRI topics include: physics of MR, pulse sequences, hardware, imaging techniques, artifacts, and spectroscopic localization. Ultrasound based topics covered include: propagation of ultrasonic waves in biological tissues, principles of ultrasonic measuring and imaging instrumentation, design and use of currently available tools for performance evaluation of diagnostic instrumentation, and biological effects of ultrasound. At the completion of this course, students should have an understanding of the t
Typically Offered: Spring

MED PHYS 619 Microscopy of Life Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

MED PHYS 650 Biological Optical Microscopy Credits: 3
This course for graduate students will cover several aspects of state of the art biological and biophysical imaging. We will begin with an overview of geometrical optics and optical and fluorescence microscopy, with an emphasis on instrumentation. The bulk of the course will focus on advanced imaging techniques including nonlinear optical processes (multi-photon excitation, second harmonic generation, and stimulated Raman processes) and emerging super-resolution methods. Special emphasis will be given to current imaging literature and experimental design. Prereq: Senior or Graduate standing, and CHEM 104 or 109 or 116 and, PHYSICS 104 or 202 or 208
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Every Other Spring

MED PHYS 661 Rad Lab - Radiotherapy Physics Credits: 2
Prereq: Med Phys 566
Typically Offered: Fall

MED PHYS 662 Rad Lab - Diagnostic Radiological Physics Credits: 1
Prereq: Med Phys 567
Typically Offered: Fall, Spring, Summer
MED PHYS 663 Rad Lab - Nuclear Medicine Physics  Credits: 1
Prereq: Med Phys 463
Typically Offered: Spring

MED PHYS 664 Rad Lab - Health Physics  Credits: 1
Prereq: Grad st
Typically Offered: Fall, Spring, Summer

MED PHYS 665 Rad Lab: CT, MRI, and DSA Physics  Credits: 1
Prereq: Med Phys 567 or cons inst
Typically Offered: Fall, Spring, Summer

MED PHYS 666 Rad Lab - Medical Ultrasound Physics  Credits: 1
Prereq: Grad st
Typically Offered: Fall, Spring

MED PHYS 671 Selected Topics in Medical Physics  Credits: 1 - 3
Various subjects of interest to medical physics faculty and students. Prereq: Consent of instructor
Typically Offered: Fall, Spring

MED PHYS 679 Radiation Physics Metrology  Credits: 3
Metrology, the science of measurement, is a critical component of medical physics. Topics covered:
measurement statistics, determination of uncertainty, characteristics of ionization chambers, electrometers and
other ionizing radiation measurement devices. Effects of instrumentation on clinical measurements. Prereq:
Med Phys 501; Med Phys 566 & 567 recommended
Typically Offered: Spring

MED PHYS 699 Independent Reading or Research  Credits: 1 - 3
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

MED PHYS 701 Ethics and the responsible conduct of research and practice of Medical Physics  Credits: 1
This course will introduce the concepts of ethics in the daily practice of medical physics and other scientific
disciplines and provide tools for identifying resources. Special emphasis will be placed in how these principles
have to be applied to ensure the confidentiality of the patients, the safety of the research subjects (human and
animals), differentiation between ethical and legal issues, as well as the understanding of the principles that deal
with authorships, intellectual property in the academic- and industry- based environment. This will be a 1 credit
course (16hs). It will consist of 8 weekly meetings (2 hs each session). Prereq: Graduate or professional
standing
Typically Offered: Spring

MED PHYS 710 Advances in Medical Magnetic Resonance  Credits: 3
This course studies in some depth the theory and applications of magnetic resonance (MR) in medicine. It
provides the necessary theoretical background to understand advanced MR techniques including magnetic
resonance imaging (MRI). Prereq: Med Phys or B ME 568.
Typically Offered: Occasionally

MED PHYS 719 Multi-modality Molecular Imaging in Living Subjects  Credits: 3
Gives an overview of all major areas in molecular imaging, based on each imaging modality. Additional topics
include, but are not limited to, role of molecular imaging in stem cell research, molecular imaging with
nanoparticles, theranostics, molecular imaging in drug development, optical imaging and its clinical applications,
reporter gene imaging, imaging of apoptosis, PET imaging of cancer, imaging protein-protein interactions.
Prereq: None
Typically Offered: Spring

MED PHYS 775 Advanced Ultrasound Physics  Credits: 3
Foundations of acoustic wave equations, diffraction phenomena and acoustic beam formation, models for
acoustic scattering from discrete structures and inhomogeneous continua, speckle statistics including speckle
correlation, applications of these topics in medical imaging. Prereq: Med Phys 575, Physics 311, 322, 325, Math
234, or cons inst
Typically Offered: Occasionally
MED PHYS  812 Radiation Medicine Physics Clerkship  Credits: 2
Allows students to observe and participate in the application of medical physics principles in the clinical setting. Under supervision, students will perform the functions of a clinical medical physicist in radiation medicine. Prereq: Med Phys 501 & 566
Typically Offered: Occasionally

MED PHYS  900 Journal Club and Seminar  Credits: 1
Prereq: Cons inst
Typically Offered: Occasionally

MED PHYS  990 Research  Credits: 1 - 12
Prereq: Cons inst
Typically Offered: Occasionally

MEDICAL SCIENCES - MED SCHOOL

MED SC-M  699 Directed Study  Credits: 1 - 9
Prereq: Open only to Med stdts
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

MED SC-M  703 Integrated Hematology System  Credits: 3
Integrated hematology pathophysiology integrated with pharmacology, nutrition, and pathology. Prereq: Open to Grad stdts by cons inst & coordinator
Typically Offered: Occasionally

MED SC-M  706 Integrated Cardiovascular System  Credits: 4
Cardiovascular pathophysiology integrated with pharmacology, nutrition, pathology, public health and ethics. Prereq: Open to Grad stdts by cons inst & coordinator
Typically Offered: Occasionally

MED SC-M  707 Integrated Gastrointestinal & Hepatic Systems  Credits: 3
Combines pathophysiology, pathology, pharmacology, neoplasia and nutrition. Prereq: Open to Grad stdts by cons inst and coordinator
Typically Offered: Occasionally

MED SC-M  709 Integrated Renal System  Credits: 3
Integrated renal pathophysiology integrated with pharmacology, nutrition, pathology, public health and ethics. Prereq: Open to Grad stdts by cons inst and coordinator
Typically Offered: Occasionally

MED SC-M  711 Integrated Endocrinology and Reproductive Health  Credits: 3
Combines pathophysiology, pathology, pharmacology, neoplasia and nutrition. Prereq: Open to Grad stdts by cons inst and coordinator
Typically Offered: Occasionally

MED SC-M  715 Integrated Respiratory System  Credits: 4
Respiratory pathophysiology integrated with pharmacology, nutrition, pathology, public health and ethics. Prereq: Open to Grad students by cons inst and coordinator
Typically Offered: Occasionally

MED SC-M  717 Pharmacology I  Credits: 4
Lectures and discussions. For students in medicine. Prereq: Completion of the 1st year medical school curriculum
Typically Offered: Occasionally

MED SC-M  719 Seminar-Contemporary Issues in Health Care  Credits: 1 - 2
Lecture. Social, economic and political aspects of health care delivery, including health needs and demands, doctor shortage, health team, models of delivering care, health planning, cost and financing, quality of care and international systems. Prereq: Cons inst
Typically Offered: Occasionally
MED SC-M 721 Neoplastic Diseases Credits: 2
Prereq: Open to Grad stdts by cons inst & coordinator
Typically Offered: Occasionally

MED SC-M 724 Integrated Dermatology Credits: 1
Addresses the anatomy and function of the skin and offers an overview of diseases that impact the skin. Prereq: Standing as med 1 student
Typically Offered: Fall

MED SC-M 726 Psychiatry: Interpersonal and Biopsychosocial Aspects Credits: 1
Advances understanding of medical models that integrate disease, health and patients in a systems manner. Examines common psychiatric disorders and their occurrence. Demonstrates usefulness of population and public health perspectives and focuses on developing advanced skills in interviewing psychiatric patients. Prereq: Med Sc-M 716
Typically Offered: Occasionally

MED SC-M 727 Pharmacology II Credits: 2
Continuation of 717. Prereq: All basic sci crses taught in the 1st yr and the 1st semester of the 2nd yr of the Med Schl curriculum
Typically Offered: Occasionally

MED SC-M 728 Integrated Musculoskeletal System Credits: 2
Provides an understanding of the musculoskeletal system's function and response to injury and disease. Prereq: Standing as a year 2 medical student (completion of year 1 medical school curriculum)
Typically Offered: Spring

MED SC-M 729 Integrated Neurosciences Credits: 3
Describes the normal and abnormal function of the nervous system, including changes in cognition, emotion and behavior. Prereq: Standing as a year 2 medical student (completion of year 1 medical school curriculum)
Typically Offered: Spring

MED SC-M 731 Medical Neuroanatomy Credits: 3
multidisciplinary basic science of medicine course that covers the development, structure, and function of the nervous system with the purpose of preparing future physicians to understand and diagnose common neurological syndromes. The course covers general principles of the development, connectivity, and blood supply of the central and peripheral nervous system. Course sessions will cover both regions and functions of the nervous system. Prereq: Open to Graduate students and by consent of instructor
Typically Offered: Occasionally

MED SC-M 733 Complementary Medicine: Implications for Clinical Practice Credits: 1
This elective course will cover the fundamentals of psychoneuroimmunology; meditation; traditional chinese medicine; botanical medicine; ayurveda; homeopathy; massage, therapeutic touch and reiki; chiropractic, osteopathic and cranial sacral therapy; art therapy; integration of complementary medicine into a mainstream practice. Prereq: 1st or 2nd yr Med st
Typically Offered: Occasionally

MED SC-M 734 Clinical Nutrition in Human Health and Disease Credits: 1
The course covers the following topics: Nutrition assessment and support; malnutrition; eating disorders; nutritional consequences of alcoholism; obesity; nutrition across the life cycle; nutrition of chronic diseases, and nutrition fads. Prereq: Must be Grad stdt or Med stdt
Typically Offered: Occasionally

MED SC-M 735 Medical Spanish for Health Science Students Credits: 1
This course is offered for health science students with beginning or intermediate Spanish proficiency who want to acquire medical interviewing, physical examination and cultural competency skills to enhance their ability to provide care for Spanish-speaking patients and their families. Prereq: Med, nursing, pharm, & vet med stdts who have had prev Spanish lang instruction
Typically Offered: Occasionally

MED SC-M 740 Overview of Rural Health Credits: 1
This elective course will introduce students to key concepts of rural medicine and especially of rural Wisconsin. Prereq: Health professional or related program enrollment with course director permission
Typically Offered: Occasionally
MED SC-M 747 Persuasion: The Art of Effectively Conveying Health Information Credits: 1
Effectively presenting knowledge is an important skill in the health sciences, both to those in our fields as well as those in other arenas. Learn how to write clear, engaging, and visually striking slides conveying medical information as well as interact well with those slides. Become more comfortable with speaking about health sciences topics, whether your listeners are professional colleagues or general audiences. Learn how to facilitate health discussions in a manner which is valuable for all participants. This course combines discussion with professionally fulfilling presentations by the participants to try out their skills and receive valuable, supportive feedback from their colleagues.
Typically Offered: Fall, Spring

MED SC-M 751 Foundations of Medicine 1 Credits: 3
Basic concepts in several disciplines that underlie the practice of medicine. Themes include cellular injury, tissue repair, inflammation, neoplasia, pharmacodynamics, drug disposition, peripheral nervous system pharmacology, life cycle nutrition and basic concepts regarding obesity. Prereq: Standing as med 2 student (completion of year 1 Medical School curriculum)
Typically Offered: Fall

MED SC-M 755 Foundations of Medicine 2 Credits: 3
Addresses the basic principles of medical microbiology and the infectious diseases involving the cardiovascular, respiratory, renal and dermatologic systems and related any-microbial therapies. Prereq: Standing as med 2 student (completion of year 1 Medical School curriculum)
Typically Offered: Fall

MED SC-M 757 Foundations of Medicine 3 Credits: 3
Addresses the basic principles of virology and parasitology and the infectious diseases involving the gastrointestinal, musculoskeletal and central nervous systems and related antimicrobial therapies. Prereq: Med Micro 701
Typically Offered: Occasionally

MED SC-M 759 Foundations of Medicine 4 Credits: 1
Addresses several advanced concepts in medicine through themes that incorporate multisystem perspectives. Prereq: Standing as a year 2 med student (completion of year 1 medical school curriculum)
Typically Offered: Spring

MED SC-M 768 Consumer Health Advocacy and Patient-Centered Care Clinical Credits: 1 - 7
Interdisciplinary health advocacy clinical supervised by diverse professional staff. Provide broad advocacy to patients with life-threatening and serious chronic illnesses. Advocacy topics include: medical decision-making, insurance, medical debt, disability issues. Weekly discussions of patient cases and related guest lectures. Prereq: Graduate or Professional standing or acceptance in Capstone Certificate in Consumer Health Advocacy
Typically Offered: Fall, Spring, Summer

MED SC-M 769 Consumer Issues in Health Care Credits: 1 - 3
Explores consumer issues in health care delivery in interdisciplinary discussion-based format. Covers current delivery system, expenditures/finance, managed care/insurance, barriers to access, reform, and other select topics. Ideal for future healthcare providers and others interested in patients' experiences. Prereq: Grad st
Typically Offered: Fall, Spring, Summer

MED SC-M 770 Patients, Professionalism and Public Health Credits: 4
Introduces students to the concepts of health and disease, which vary from patient to patient and through time. This includes health from a population standpoint, with an introduction to basic public health concepts as well as how physicians may positively impact both individual and population level health. Woven within that framework are introductions to key aspects of professionalism, patient-centered history-taking, and core communication skills. Prereq: Medical student
Typically Offered: Fall

MED SC-M 771 Body in Balance Credits: 11
Organized around physiological themes, the course includes material related to the cardiovascular system, hematology, nephrology, and pulmonology to present an integrated picture of how these systems function together to maintain homeostasis. In addition, there is significant content from other competency domains such as public health, ethics, evidence-based medicine, patient care/communication and clinical skills. Prereq: Declared in Medical program
Typically Offered: Fall
MED SC-M   772 Food, Fasting & Fitness  Credits: 9
Food, Fasting and Fitness is organized around biomedical themes including nutrients, the digestive system, the biochemistry and endocrine control of metabolism, exercise and fitness and the removal of waste products and toxins to present an integrated picture of how these systems function together to maintain homeostasis. It also integrates developmental content from Threads including Communication, Patient Care, Ethics, Health Information Technology, Public Health, Professionalism, Quality Improvement, Patient Safety and Scientific Inquiry. Prereq: Declared in Medical program
Typically Offered: Spring

MED SC-M   773 Human Family Tree  Credits: 8
The course content focuses on molecular, genetic, embryologic, hormonal, anatomical and physiological factors that govern fertility, cell growth, fetal development, and pregnancy as well as the congenital anomalies that can occur when those processes are aberrant. It encompasses the full life-cycle spectrum including childhood growth and development, young adulthood/puberty, issues affecting adolescents and young adults, genetic basis of human disease, reproductive health, menopause, aging, unregulated cell growth (cancer) and end of life issues. In addition, there is significant content from other competency domains such as public health, advocacy, ethics, patient care/communication and cli
Typically Offered: Spring

MED SC-M   800 Patient, Doctor and Society 1  Credits: 3
First year first semester students spend one half-day every other week in a clinical setting with a primary care physician. In each clinical session, the student will accompany the physician in seeing as many patients as feasible and appropriate. Learning activities for each clinic session will focus on a clinical skill as well as various features of primary care. Prereq: 1st yr Med st
Typically Offered: Occasionally

MED SC-M   801 Patient, Doctor and Society 2  Credits: 3
A second semester first year course which covers the basic topic areas of (1) medical ethics and the systems issues in health care, (2) the patient and family, (3) the impact of illness, and (4) the doctor-patient relationship. Prereq: First yr Med st
Typically Offered: Occasionally

MED SC-M   806 Patient, Doctor and Society 3  Credits: 3
In large groups, small groups, and visits to primary care clinics, students will continue to acquire clinical knowledge and skills pertaining to taking histories, performing physical examinations, interpreting medical literature, considering ethical dilemmas, and understanding the US health care system. Prereq: Med Sci-M 800, 804
Typically Offered: Occasionally

MED SC-M   807 Patient, Doctor and Society 4  Credits: 3
In large groups, small groups, and visits to primary care clinics, students will continue to acquire clinical knowledge and skills pertaining to taking histories, performing physical examinations, interpreting medical literature, considering ethical dilemmas, and understanding the US health care system. Prereq: Med Sci-M 800, 804, 806
Typically Offered: Occasionally

MED SC-M   909 Internship Prep Course  Credits: 3
A required course for all medical students. The course is designed for students to apply the knowledge and skills developed over four years of medical school and prepare them for the transition from medical student to intern. The course will cover topics in the following domains: Common and Critical Medical Conditions, Laboratory Interpretation and Procedural Skills, Professionalism and Communication, Hospital and Team Functioning and Life Skills. Sessions will include core topics for all students and sessions for those who will pursue medical or surgical specialties. Prereq: 4th year medical student standing
Typically Offered: Spring
MED SC-M  910 MEDiC Clinics Selective: A Study of Marginalized Populations and Interprofessional Collaboration
Credits: 2
This course provides a two-pronged opportunity for fourth year medical students: 1) to re-engage with MEDiC clinics where they may have volunteered during their first and second years of medical school, and to further appreciate the complexities of serving marginalized populations; 2) the opportunity to use their recent clinical experience to contribute as both mentors and collaborators with students from multiple health professional professions. Students will be asked to look carefully at the broad public health issues affecting the patients they will treat in the MEDiC clinics and to appreciate how these issues inform their health status, health care and health access. Students will also b
Typically Offered: Spring

MEDICINE

MEDICINE  523 Clinical Exercise Testing & Training Credits: 3
Physiological basis and methods of human exercise testing and training. Topics: clinical exercise physiology, exercise testing protocols, cardiopulmonary monitoring, basic ECG interpretation, exercise prescription. Prereq: Kines 314 or cons inst
Typically Offered: Fall, Spring, Summer

MEDICINE  625 Toxicology I Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body. Prereq: Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

MEDICINE  626 Toxicology II Credits: 3
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented. Prereq: Env Tox 625 or consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

MEDICINE  650 Women and Leadership in Medicine, Science and Engineering Credits: 1 - 3
Review and discussion of research on effective leadership; gender differences in leadership; unconscious assumptions about behaviors and traits of leaders; and approaches to counteracting biases. Required assignments vary with credits from reflective journal to literature review to research project. Prereq: Graduate students, Professional students: Upper-level undergrads with consent of instructor
Typically Offered: Spring

MEDICINE  699 Independent Study Credits: 0 - 9
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

MEDICINE  701 Cell Signaling and Human Disease Credits: 1
This course is intended for PhD and MSTP students interested in medically relevant basic science. Landmark discoveries, as well as current knowledge and controversies in human health, with an emphasis on cancer biology, will be covered. Prereq: Students must be enrolled in a PhD or MSTP program
Typically Offered: Spring

MEDICINE  705 Seminar in Interdisciplinary Clinical Research Evidence Credits: 2
Exploration of interdisciplinary clinical research questions including strategies for assessing the evidence and conducting a systematic review of research. An interdisciplinary perspective is emphasized throughout the course. Prereq: Grad sttts with at least one grad rsch crse, or postdoc trainees, or cons inst
Typically Offered: Occasionally

MEDICINE  710 Improvisational Theatre for Scientists Credits: 1
Improvisers are experts in storytelling, spontaneity, and using observation skills to adjust to their audiences and team members accordingly. Among other skills, this 5-week course will teach you how to (1) effectively communicate your work to different audiences, (2) adjust your behavior in real time to respond to audience feedback, and (3) manipulate your vocal and physical presence to communicate more effectively. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring, Summer
MEDICINE 812 Principles of Internal Medicine-Basic Clerkship  Credits: 1 - 12
Prereq:  3rd yr st in Med School
Typically Offered:  Occasionally

MEDICINE 901 MSTP Introduction to Clinical Medicine  Credits: 3
Full-time clinical clerkship for students of the Medical Scientist (MD/PhD) Training Program (MSTP) prior to
graduate school, taken to develop clinical skills and cement prior didactic coursework. Prereq:  Limited to MSTP
stdts who have completed yrs 1 & 2 of med school & have taken USMLE Step 1
Typically Offered:  Occasionally

MEDICINE 902 MSTP Physician Scientist Preceptorship in Clinical & Translational Research  Credits: 1 - 6
Six-week clinical and translational research preceptorship for students of the Medical Scientist (MD/PhD) Training
Program (MSTP). Prereq:  Limited to MSTP students in fourth year of medical school who have completed
Medicine 901 and Medicine 903 or with instructor consent
Typically Offered:  Occasionally

MEDICINE 903 MSTP Longitudinal Clinical Clerkship in Graduate School  Credits: 1 - 12
This is a required clinical elective for MSTP students during their graduate years. During PhD training, all students
are required to participate in a scholarly continuity clinical experience in their fields of interest. Each student will
complete and certify 10 half-day sessions or equivalent with an academic clinical mentor and present in the MSTP
seminar. Prereq:  Limited to MSTP students in graduate school
Typically Offered:  Occasionally

MEDICINE 910 Independent Reading and Research for Fourth Year Medical Students  Credits: 1 - 12
Prereq:  4th yr Med st
Typically Offered:  Occasionally

MEDICINE 914 Therapeutics I - Emphasis on Chronic Diseases  Credits: 2
Students will have a greater knowledge of the use of drugs to treat common illnesses. They will better understand
the appropriate selection of drugs and the management of side effects in treating chronic illnesses. Prereq:  4th
yr Med st or cons inst
Typically Offered:  Occasionally

MEDICINE 915 Clinical Therapeutics - Preparation for residency  Credits: 2 - 4
Students will be better prepared for internship by developing a greater understanding of common medical
diseases and the best current pharmacologic and non-pharmacologic therapies. Students will learn how to apply
this knowledge through recorded lectures and interactive case-based web-conferences. Prereq:  4th yr Med
student or consent of instructor
Typically Offered:  Occasionally

MEDICINE 916 Palliative Care  Credits: 2 - 4
To introduce students to the clinical aspects of palliative care integrated between patients here at the CSC either
by seeing them in the clinic or on the inpatient service and Hospice Care Inc. Prereq:  4th yr Med student
Typically Offered:  Occasionally

MEDICINE 917 Research in Tobacco Prevention and Cessation  Credits: 4
Provides students with an exposure to and training in tobacco research and intervention activities. The students
will be housed at the UW Center for Tobacco Research and Intervention (CTRI), the lead UW campus agency
confronting tobacco use. Prereq:  4th yr Med st
Typically Offered:  Occasionally

MEDICINE 918 Health Informatics for Medical Students  Credits: 2
Explore medical informatics as a new way to practice medicine with applications to patient care, electronic
medical records, and patient safety. Prereq:  Basic computer literacy & 4th yr Med st or cons inst
Typically Offered:  Occasionally

MEDICINE 919 Individualized Fourth Year Clinical Clerkship  Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count
for fourth year credit.) Prereq:  4th yr Med st
Typically Offered:  Occasionally
**MEDICINE 921 Ambulatory Medicine Clerkship-Student Health** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 930 Women's Health in Primary Care** Credits: 2 - 4  
This elective will focus on fundamental aspects of women's health important to all physicians in internal medicine. Students will work with academic faculty in women's health to refine clinical knowledge and skills essential for providing excellent health care to women. Prereq: Successful completion of 3rd yr Internal Med Clrkshp and/or Primary Care Clrkshp  
Typically Offered: Occasionally

**MEDICINE 933 Geriatric Elective** Credits: 2 - 12  
Prereq: 4th year medical student standing or completion of Medicine 812 (3rd year medicine clerkship)  
Typically Offered: Occasionally

**MEDICINE 935 Hematology/Oncology** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 938 Acting Inpatient Internship-Internal Medicine** Credits: 4  
As an inpatient medicine acting intern (AI), you will have primary responsibility for patients actionable in four domains: 1. Management: As an AI, you will develop actionable management and treatment plans based on your history, physical exam and targeted data. 2. Communication: AIs will communicate with colleagues, primary care providers and consultants. AIs will demonstrate thorough patient hand-offs and write concise discharge summaries that will be integral to patient care. 3. Learning: Patient care issues will be the central guide for learning, directing reading, consultation and research. AIs will formulate questions based upon clinical dilemmas, research the appropriate literature an  
Typically Offered: Occasionally

**MEDICINE 939 Inpatient-Outpatient Alcohol and Other Drug Abuse Clerkship-Marshfield** Credits: 2 - 12  
Clinical elective for fourth year medical students. Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 940 Allergy and Clinical Immunology Clerkship** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 942 Clinical Electrophysiology-Milwaukee** Credits: 2 - 12  
Prereq: Graduate or professional standing  
Typically Offered: Occasionally

**MEDICINE 943 Cardiology Consultation Service** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 944 Clinical Cardiology Clerkship** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 945 Acute Care Medical Cardiology-Milwaukee** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 949 Adult Cardiovascular Diseases Clerkship-Marshfield** Credits: 2 - 12  
Prereq: 4th yr Med st  
Typically Offered: Occasionally

**MEDICINE 951 Ambulatory Cardiology** Credits: 4  
This course will provide an overview of outpatient diagnosis and management of adult cardiovascular diseases through direct patient contact, mentored instruction and directed core readings. Prereq: 4th yr Med st  
Typically Offered: Occasionally
MEDICINE 953 Dermatology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 954 Dermatology Clerkship-Marshfield Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 955 Hepatology Credits: 2
Students will be exposed to inpatient and outpatient hepatology practice and learn how to function as a consultant in an academic and Veterans Administration Medical Center over a two week rotation. Prereq: MEDICINE 812
Typically Offered: Fall, Spring, Summer

MEDICINE 962 Endocrinology Clerkship Credits: 2 - 12
Prereq: Fourth year medical school standing or successful completion of third year medicine clerkship
Typically Offered: Occasionally

MEDICINE 964 Inpatient-Outpatient GI/Hepatology Subinternship-Marshfield Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 965 Gastroenterology Clerkship Credits: 1 - 12
Prereq: 4th yr Medical student
Typically Offered: Occasionally

MEDICINE 969 Transfusion Medicine Clerkship-CSC Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 970 Gastroenterology/Hepatology Consult Service-Milwaukee Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 971 Infectious Disease Clerkship Credits: 2 - 12
Prereq: 4th yr Med student
Typically Offered: Occasionally

MEDICINE 972 Infectious Disease Clerkship-VAH Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 976 Clinical Nephrology Clerkship Credits: 2 - 12
Prereq: 4th yr Med student
Typically Offered: Occasionally

MEDICINE 981 Pulmonary Disease - Clinic/Consults Credits: 2 - 12
Prereq: 4th yr Med student
Typically Offered: Occasionally

MEDICINE 985 Critical Care Medicine Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 988 Clinical Elective in Rheumatology-CSC/VAH Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

MEDICINE 990 Research Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Occasionally

NEUROLOGICAL SURGERY
NEURSURG 699 Neurosurgery: Directed in Study in Research Credits: 1 - 3
Directed Study in Neurological Surgery offers the undergraduate student majoring in an area of the biological sciences, and interested in preparing for advanced coursework in graduate or medical school, an opportunity to participate in neurological surgery research. Prereq: Fr/So/Jr/Sr standing and consent of instructor
Typically Offered: Fall, Spring, Summer

NEURSURG 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th year Med student
Typically Offered: Occasionally

NEUROLOGY

NEUROL 699 Neurology: Directed Study in Neuroscience Research Credits: 1 - 3
Neurology: Directed Study in Neuroscience Research offers the undergraduate student majoring in life sciences, including biology, chemistry, psychology, or related fields with interest in preparing for advanced coursework in graduate or medical school, an opportunity to participate in basic and translation research in neuroscience and neurological disorders. Prereq: Freshman/Sophomore/Junior/Senior undergraduate standing
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

NEUROL 779 Human Muscle Function in Health and Disease Credits: 2
Multidisciplinary seminar on human muscle function in health and disease. The course is geared toward advanced undergraduate and graduate students in kinesiology, physical and occupational therapy, motor control and behavior, neurophysiology resident in neurology and other related allied health professionals. Prereq: Cons inst
Typically Offered: Occasionally

NEUROL 812 Neuroscience Core Clerkship Credits: 1 - 4
Four week clerkship with exposure to various neurological conditions in inpatient and outpatient settings. Students will enhance their skills in diagnosis, evaluation, treatment, and prognosis of patients with medical conditions. There will be a core goal to develop physical examination techniques. Knowledge about specific delineated neurological conditions will be emphasized. Prereq: 3rd year Medical student
Typically Offered: Occasionally

NEUROL 910 Independent Reading and Research for Fourth Year Medical Students Credits: 1 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

NEUROL 911 Nerve Tissue Culture Laboratory-MSC Credits: 5
Prereq: 4th yr Med st
Typically Offered: Occasionally

NEUROL 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Students must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th yr Med st
Typically Offered: Occasionally

NEUROL 920 Clinical Neurology Clerkship-Marshfield Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

NEUROL 990 Research Special Neurological Fields Credits: 1 - 12
Prereq: 2nd yr Med st
Typically Offered: Occasionally

NEUROL 999 Research Training in Neurology Credits: 1 - 3
Prereq: 2nd yr Med st
Typically Offered: Occasionally

NEUROSCIENCE
NEURODPT 616 Lab Course in Neurobiology and Behavior Credits: 4
Students will do three independent experimental modules exploring neurophysiology and behavior, each taking 4-5 weeks. Students will work in groups of 2 or 3 and will learn techniques and then develop their own short investigations into each of three separate areas of neurobiology. There will be continual interaction between students and faculty. Prereq: ZOOLOGY/NTP/PSYCH 523 and NTP/PHYSIO/PSYCH/ZOOLOGY 524 or NTP/PHMCOL-M/PHYSIOL 610 and ANATOMY/NTP/PHMCOL-M/PHYSIOL/PSYCH 611
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NEURODPT 699 Independent Work Credits: 1 - 4
Independent work
Typically Offered: Fall, Spring, Summer

NEUROSCIENCE TRAINING PROGRAM

NTP 523 Neurobiology Credits: 3
Basic mechanisms in cellular neurophysiology: electrophysiology and chemistry of nerve signals, mechanisms in integration, simple nervous pathways and their behavioral correlates. Prereq: Biocore 323 or Zool 151/152 or Zool 101 plus an additional zool crse & a yr each of chem & physics
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NTP 524 Neurobiology II: An Introduction to the Brain and Behavior Credits: 3
An introduction to studies of the human nervous system covering neuroanatomy of the brain, neuronal coding, sensory and motor systems, biological rhythms, arousal, attention, physiological regulation, reward, aversion, learning and memory. Prereq: Zool 523, equiv crse in physiol, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 555 Laboratory in Developmental Biology Credits: 3
Developmental anatomy and laboratory manipulations of representative animal embryos used extensively for analysis of developmental phenomena (sea urchins, amphibia, annelids, molluscs, ascidians, insects, chicks, fish, mice). Prereq: Prev or con reg in either Zoo 440, 470, 625, or Biocore 333, or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NTP 610 Cellular and Molecular Neuroscience Credits: 4
Study of original papers leading to an understanding of the molecular basis of electrical activity in neurons. Topics include voltage-sensitive currents, molecular biology of neuronal receptors, synaptic transmission and sensory transduction. Lectures supplemented with experimental demonstrations and discussion sessions. Prereq: Zoo 523 or equiv
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 611 Systems Neuroscience Credits: 4
Introduction to the anatomy and physiology of the mammalian nervous system. Lectures will cover the neuroanatomy of the major subdivisions of the human brain, the major sensory and motor systems, and higher order functions. Lab/discussion sections will emphasize readings from the primary literature and hands-on dissections. Prereq: Physiol 610
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 616 Lab Course in Neurobiology and Behavior Credits: 4
Students will do three independent experimental modules exploring neurophysiology and behavior, each taking 4-5 weeks. Students will work in groups of 2 or 3 and will learn techniques and then develop their own short investigations into each of three separate areas of neurobiology. There will be continual interaction between students and faculty. Prereq: ZOOLOGY/NTP/PSYCH 523 and NTP/PHYSIO/PSYCH/ZOOLOGY 524 or NTP/PHMCOL-M/PHYSIOL 610 and ANATOMY/NTP/PHMCOL-M/PHYSIOL/PSYCH 611
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 619 Biology of Mind Credits: 3
Origins and structures of mind, brain, and consciousness. Transitions from early mammalian through primate to hominin intelligence. Genetics and plasticity in brain development. Modern studies of human brain mechanisms and consciousness. Prereq: Jr st; college level elem crse in biology or psych
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
NTP 620 Neuroethology Seminar Credits: 2
A group discussion of primary literature articles relevant to the neural basis of behavior with a purpose to
understand the neural basis of behavior in animals, to learn to read papers critically and improve discussion
leading skills. Prereq: Introductory biology. Background in neuroscience strongly recommended
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 625 Brain Cell Cultures and Imaging: A Lab Course Credits: 4
Hands-on laboratory training in neuronal cell culture, live and fixed neuron labeling and microscopy techniques to
visualize neurons in culture, as well as image analysis methods. Prereq: Intro crses in biochem, cell biology &
anatomy. Enrollment limited to 12 students, authorized by cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 629 Molecular and Cellular Mechanisms of Memory Credits: 3
Course will focus on the cell signaling and the resulting structural changes that occur at neuronal synapses during
memory formation. The aim is to understand how the synaptic changes underlying memory occur. Prereq: Crse
in cellular neurosci (Neurosci 523 or equiv); Biochem 501 or equiv
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NTP 630 Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex Credits: 3
Current literature will be considered in lectures and discussions that provides insight into how the cerebral cortex
processes sensory information to generate and store cogent representations of the external world. The course
includes laboratory exercises and demonstrations. Prereq: Intro neurosci crse highly recommended:
Neurosci/Anat/Phmcol/Physiol 611, Med Sc-M 731, Comp Bio 505, Zool/Neurosci/Psych 523,
Psych/Neurophy/Neurosci/Zool 524; or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 635 Neurobiology of Disease Credits: 2
Seminar course relating major categories of human neurological and opthalmological disease to fundamental
topics in neurobiology. Prereq: Zool/Neurosci 523 & 524 or cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NTP 655 Modeling Neurodevelopmental Disease Credits: 3
This course will systematically explore current animal models of human diseases that affect the central nervous
system. Topics will include birth defects that disrupt normal brain architecture (holoprosencephaly and neural tube
closure defects), birth defects affecting the visual system, and postnatal disease, e.g. neurodegeneration and
stroke. This course is designed for graduate and advanced undergraduate students. Prereq: Graduate standing
or BOTANY/GENETICS/ZOOLOGY 466, ZOOLOGY 470, NTP/PSYCH/ZOOLOGY 523, or ZOOLOGY 570
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

NTP 660 Neuroscience & Public Policy Seminar Credits: 1 - 2
A graduate level seminar open to advanced undergraduates with consent of instructor. Covers various topics in
neuroscience and in the related sciences in lectures that demonstrate the interaction between science and public
policy. Prereq: Undergraduates: a background in neuroscience, (Zoology 523 and 524, or Biocore 323 or
Neurosci 610 and 611). Grad st in the Neuroscience Training Program or in the Neuroscience and Public Policy
Program
Typically Offered: Fall, Spring

NTP 670 Stem Cells and the Central Nervous System Credits: 2 - 3
Among the topics that will be included in the course are: embryonic stem cells, adult stem cells, and the
transplantation of embryonic and adult stem cell to the developing and adult CNS for experimental and
therapeutic purposes. Prereq: Biochem 501 or equiv. Grad stdts in the sciences or adv undergrads with cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

NTP 675 Special Topics Credits: 1 - 3
Prereq: Variable
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

NTP 681 Senior Honors Thesis Credits: 3
Research and thesis in neuroscience. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer
NTP 682 Senior Honors Thesis Credits: 3
Continuation of 681. Prereq: Neurosci 681, cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

NTP 691 Undergraduate Thesis Credits: 3 - 6
Research and thesis in neuroscience. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

NTP 692 Undergraduate Thesis Credits: 3 - 6
Continuation of 691. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

NTP 699 Directed Study in Research Credits: 1 - 6
Directed research in neuroscience. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

NTP 700 Professional Development for Biomedical Graduate Students Credits: 1
Provides graduate students with the skills and knowledge necessary to succeed in science. Topics which are covered include choosing a thesis advisor, grant writing, preparing a seminar presentation, etc. Prereq: Graduate or professional standing
Typically Offered: Occasionally

NTP 765 Developmental Neuroscience Credits: 3
Analysis of neural development with emphasis on experimental approaches. Combination of lectures and discussions of primary literature. Topics include neural induction, patterning, mechanisms of axon guidance, neural crest cell migration and differentiation, cortical development, and synapse formation and elimination. Prereq: Grad st in biol sci; undergrads with cons inst
Typically Offered: Occasionally

NTP 900 Neuroscience Seminar: Current Topics in Neurobiology Credits: 1
Critical review of selected topics in neurobiology. Prereq: Cons inst
Typically Offered: Occasionally

NTP 990 Research and Thesis Credits: 1 - 12
Prereq: Grad st in Neurosci
Typically Offered: Occasionally

NTP 999 Advanced Independent Study Credits: 1 - 3
Prereq: Cons inst
Typically Offered: Occasionally

OBSTETRICS AND GYNECOLOGY

OBS&GYN 699 Directed Study Credits: 1 - 12
Directed study projects as arranged with faculty member. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

OBS&GYN 807 Reproductive and Perinatal Epidemiology Credits: 2
The course provides students with an overview of the current knowledge and research in reproductive and perinatal epidemiology. Through reading of the primary and secondary literature, students examine issues related to topics such as fertility, preconception health, and perinatal outcomes including maternal morbidity and mortality, pregnancy loss, and infant outcomes. Current evidence-based strategies designed to improve reproductive and perinatal outcomes are reviewed. Long-term health implications of pregnancy and infant health are considered. The classes will be structured to include faculty-led lectures, discussions with guest faculty, and student-led discussions. Prereq: POP HLTH/SOC
Typically Offered: Fall

OBS&GYN 812 Third Year Obstetrics and Gynecology Credits: 1 - 6
Prereq: 3rd yr Med st
Typically Offered: Occasionally
### OBS&GYN 875 Special Topics Credits: 2
The course aims to provide timely reviews or updates of significant methodologies or advances in reproductive biology (including that of non-human vertebrates). Prereq: Grad st or pro degree (e.g. M.D., D.V.M., etc) & cons inst
Typically Offered: Occasionally

### OBS&GYN 910 Independent Reading and Research for Fourth Year Medical Students Credits: 1 - 16
Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 921 Gynecologic Oncology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 922 Inpatient-Outpatient Experience Clerkship-Marshfield Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 924 Reproductive Medicine Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 925 High Risk Obstetrics Clerkship-Meriter Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 927 Obstetrics and Gynecology Inpatient Clerkship-La Crosse Credits: 1 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 928 Obstetrics and Gynecology Outpatient Clerkship-La Crosse Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

### OBS&GYN 931 Women’s Reproductive Health Credits: 2 - 4
This elective will provide outpatient clinical experiences in family planning, pregnancy counseling (including adoption), abortion services (optional), routine gynecologic care, STD screening/treatment, prenatal diagnosis and counseling, prenatal care, infertility, sexual assault services and adolescent gynecology. Prereq: Obs&Gyn 812
Typically Offered: Occasionally

### OBS&GYN 932 Benign Gynecology & Urogynecology Elective Credits: 4
This elective will provide medical students with an in-depth exposure to office and surgical benign gynecology and urogynecology in the hospital and clinic-based settings. The student will work under the direct supervision of a senior resident and the gynecology and urogynecology faculty. This rotation will provide the student with the opportunity to function at the intern level and play an active role in the pre-operative, intra-operative, and postoperative management of benign gynecological and urogynecological patients. Prereq: Successful completion of OBS&GYN 812, Third Year Obstetrics and Gynecology Clerkship
Typically Offered: Fall, Spring, Summer

### OBS&GYN 933 Benign Gynecology Elective Credits: 4
The Benign Gynecology elective will provide medical students with an in-depth exposure to benign gynecology and gynecologic surgery in children, adolescents, and adult female patients in the hospital and clinic-based settings. The student will work under the direct supervision of a senior resident and the gynecology faculty. This rotation will provide the student with the opportunity to function at the intern level and play an active role in the pre-operative, intra-operative, and postoperative management of benign gynecological patients. Prereq: Successful completion of OBS&GYN 812, Third Year Obstetrics and Gynecology Clerkship
Typically Offered: Fall, Spring, Summer
OBS&GYN 954 Seminar in Endocrinology-Reproductive Physiology  Credits: 0 - 1
Prereq: Cons inst
Typically Offered: Occasionally

OBS&GYN 955 Responsible Conduct of Research for Biomedical Graduate Students  Credits: 2
Meets the NIH Institutional Training Grant requirements of instruction in the nine recommended areas of conflict of interest - personal, professional, and financial; policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices; mentor/mentee responsibilities and relationships; collaborative research including collaborations with industry; peer review; data acquisition and laboratory tools; management, sharing and ownership; research misconduct and policies for handling misconduct; responsible authorship and publication; the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental
Typically Offered: Fall

OBS&GYN 956 Advanced Responsible Conduct of Research for Biomedical Students  Credits: 1
Follows course OBGNU 955 (for 1st year Graduate Trainees) to meets the NIH Institutional Training Grant requirements of repeat/ further instruction in the nine recommended areas (1) conflict of interest - personal, professional, and financial; (2) policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices; (3) mentor/mentee responsibilities and relationships; (4) collaborative research including collaborations with industry; (5) peer review; (6) data acquisition and laboratory tools, and management, sharing and ownership; (7) research misconduct and policies for handling misconduct; (8) responsible authorship and publication; (9) the scientist
Typically Offered: Spring

OBS&GYN 990 Research  Credits: 1 - 10
Prereq: Med School st or cons inst
Typically Offered: Occasionally

OCCUPATIONAL THER (DEPT-KINES)

OCC THER 865 Assistive Technology in Practice  Credits: 1
Examines the use of assistive technologies in practice including principles of assessment and design, a survey of devices and their appropriate application, common problems or barriers to effective use, and policy and funding issues. Prereq: Graduate or professional standing
Typically Offered: Every Other Spring

OCC THER 881 Doctor of Occupational Therapy: Capstone Project I  Credits: 1
Repeatable graduate course designed to facilitate the development and initial implementation of the OTD Capstone Project. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

ONCOLOGY

ONCOLOGY 401 Introduction to Experimental Oncology  Credits: 2
Biological processes associated with and characteristic of neoplasia. Prereq: Biol & org chem or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

ONCOLOGY 545 Topics in Biotechnology  Credits: 1
Seminars on current topics in agricultural, medical, and industrial biotechnology such as: microbiological production of food, drink, biopharmaceuticals; production methods, genetic engineering (vectors, recombination cloning), continuous fermentation; bioconversion processes and production of chemicals from biomass; plant biotechnology; transgenic animals. Prereq: Biochem 501 and Genetics 466 or equiv
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

ONCOLOGY 625 Toxicology I  Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body. Prereq: Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>L&amp;S Breadth:</th>
<th>L&amp;S Level:</th>
<th>L&amp;S Credit:</th>
<th>Typically Offered</th>
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<tbody>
<tr>
<td>ONCOLOGY 640</td>
<td>General Virology-Multiplication of Viruses</td>
<td>3</td>
<td>Bacterial and animal viruses, their structure, multiplication, and genetics.</td>
<td>Intro crses in bact, biochem &amp; genetics</td>
<td>Biological Science</td>
<td>Intermediate/Advanced</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 675</td>
<td>Advanced or Special Topics in Cancer Research</td>
<td>1 - 3</td>
<td></td>
<td>Cons inst</td>
<td>Biological Science</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 699</td>
<td>Special Research Problems</td>
<td>1 - 3</td>
<td></td>
<td>Cons inst</td>
<td>Advanced</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 703</td>
<td>Carcinogenesis and Tumor Cell Biology</td>
<td>3</td>
<td>Viral, chemical, and physical factors involved in tumor formation in humans and experimental animals; biology and biochemistry of neoplasia, both in vivo and in vitro.</td>
<td>Oncology 401 or equiv, organic chem, biochem, cell biology, virology, or cons inst.</td>
<td>Biological Science</td>
<td>Intermediate</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 715</td>
<td>Ethics in Science</td>
<td>1</td>
<td>A review and discussion of the fundamentals of ethical issues in science.</td>
<td>Graduate or professional standing</td>
<td>Biological Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 725</td>
<td>Readings in Cancer Biology</td>
<td>2</td>
<td>A review and discussion of the current literature on topics related to cancer biology. The emphasis is on the development of skills in data analysis, critical interpretation, and clear writing.</td>
<td>Graduate or professional standing</td>
<td>Biological Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 735</td>
<td>Current Problems in Cancer Biology</td>
<td>2</td>
<td>The emphasis of this course is on the development of skills in data analysis and interpretation, grant proposal writing, and oral presentation to help prepare students for their Preliminary Exam.</td>
<td>Declared in Cancer Biology program with second year standing</td>
<td>Biological Science</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
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<tr>
<td>ONCOLOGY 901</td>
<td>Seminar</td>
<td>1</td>
<td></td>
<td>Cons inst</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall</td>
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<td>ONCOLOGY 990</td>
<td>Research</td>
<td>1 - 12</td>
<td></td>
<td>Grad st</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring, Summer</td>
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<tr>
<td>OPTHALMOLOGY AND VISUAL SCI</td>
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<td>Cons inst</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Summer, Summer</td>
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<td>OPTHALM 699</td>
<td>Directed Study</td>
<td>1 - 12</td>
<td>Directed study projects as arranged with faculty member.</td>
<td>Cons inst</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring, Summer</td>
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<td>OPTHALM 910</td>
<td>Independent Reading and Research for Fourth Year Medical Students</td>
<td>1 - 8</td>
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<td>4th yr Med st</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring, Summer</td>
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<td>OPTHALM 919</td>
<td>Individualized Fourth Year Clinical Clerkship</td>
<td>1 - 12</td>
<td>Individually arranged fourth year clinical clerkships (students must have Fourth Year Committee approval to count for fourth year credit).</td>
<td>4th yr Med st</td>
<td>Advanced</td>
<td>Counts for LAS credit</td>
<td>Fall, Spring, Summer</td>
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**PATHOLOGY AND LABORATORY MED**
PATH 210 HIV: Sex, Society and Science Credits: 3
HIV kills three million people per year, more than any other infectious disease. We will learn about the transmission, immunology, virology, vaccinology and societal impact of this virus. Six of the world's leading HIV scientists will give guest lectures. Prereq: HS biol crse. Open to all Undergrads
L&S Breadth: Biological Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PATH 299 Independent Study Credits: 1 - 3
Prereq: Cons inst. Open to Fr
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PATH 399 Independent Study Credits: 1 - 4
Prereq: So st & cons inst
L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PATH 404 Pathophysiologic Principles of Human Diseases Credits: 3
Primarily for students of pharmacy and nursing to provide a basic understanding of the causes, pathophysiology, pathology and clinical manifestations of disease states. Required course for pharmacy and nursing programs.
Prereq: Physiol 335
Typically Offered: Spring

PATH 625 Toxicology I Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body. Prereq: Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PATH 626 Toxicology II Credits: 3
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented. Prereq: Env Tox 625 or consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PATH 651 Quality Assurance Basics Credits: 1
Describes the regulatory requirements that all healthcare laboratories must follow to assure quality throughout the testing process. Covers the extensive CLIA'88 regulations and professional accreditation (JCAHO, CAP and COLA) standards. Prereq: Path 657 & Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 652 Quality Assurance Projects Credits: 2
Provides a laboratory application for ensuring quality results through quality assurance practices in healthcare laboratories. This includes evaluating current quality assurance policies and practices and developing new policies to meet the many mandated CLIA'88 regulatory requirements and professional accreditation standards. Prereq: Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 653 Method Validation Basics Credits: 1
Describes the fundamental experimental and statistical techniques used to validate the performance of analytical methods, including experiments for working range, replication, interference, recovery, and comparison of methods and associated data calculations, such as t-test and linear regression statistics. Prereq: Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 654 Method Validation Projects Credits: 2
Provides a laboratory application of the principles and techniques of method validation studies, including experiments for working range, replication, interference, recovery, and comparison of methods and associated data calculations, such as t-test and linear regression statistics. Prereq: Path 653 & Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer
PATH 655 Quality Control Basics Credits: 1
Describes the fundamental principles, terminology, and practices of statistical quality control as applied with analytical testing processes in healthcare laboratories. Covers the plotting of Levey-Jennings control chart and interpretation of control data using the Westgard multirule procedure. Prereq: Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 656 Quality Control Projects Credits: 2
Provides a laboratory application of the principles and techniques of statistical quality control in a real-world setting. Involves auditing QC data in an analytical laboratory and critical review of laboratory QC applications. Prereq: Path 655 & Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 657 Quality Planning Basics Credits: 1
Describes the principles and approach for setting method performance specifications and selecting statistical QC procedures on the basis of the quality required for a laboratory test. Introduces the chart of operating specifications as a practical quality-planning tool. Prereq: Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 658 Quality Planning Projects Credits: 2
Provides a laboratory application of the principles, theory, and approach for establishing method performance specifications and selecting statistical QC procedures for laboratory methods. Involves specific tests and methods in an analytical service laboratory. Prereq: Path 657 & Sr st in clin lab sci, or bachelor's degree in clin lab sci, or ASCP or NCA cert in clin lab sci, or admission to the Graduate Certificate in Laboratory Quality Management
Typically Offered: Fall, Spring, Summer

PATH 691 Senior Thesis Credits: 3
Independent research in the areas of structural virology, molecular virology, viral pathogenesis, or immunity to virus infection. A seminar presentation of research data and a written thesis are required in the final semester. Prereq: Junior or Senior standing & consent of instructor
Typically Offered: Fall, Spring, Summer

PATH 699 Independent Study Credits: 1 - 4
Prereq: Jr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

PATH 703 General Pathology Credits: 2
Typically Offered: Not Applicable

PATH 704 Pathology of Organ Systems Credits: 2
Continuation of Pathology 703. Organ based pathology is concerned with the mechanisms underlying disease processes specific to a given organ system, as manifested by morphologic (gross, cellular, and ultrastructural), physiologic, and biochemical changes. Prereq: 2nd yr Med School st or written cons inst
Typically Offered: Not Applicable

PATH 709 Contemporary Topics in Cell Structure and Function Credits: 2
In-depth introduction to current topics in cell biology. Problems and issues confronting cell biologists are explored through reading and discussion of research papers. Topic varies each year. Prereq: Previous course in cell biology
Typically Offered: Occasionally
PATH 750 Cellular and Molecular Biology/Pathology Credits: 2 - 3
The emphasis is on our current understanding of molecular and cellular mechanisms. Wherever possible, human diseases are used to illustrate the outcome at the organismal level of defects in these mechanisms. Lectures will draw from the current research literature and cover topics such as cell and tissue organization, intracellular sorting, cell migration and growth. Students in Cellular and Molecular Pathology graduate program must enroll for lectures, 2 credits and discussion section, 1 credit. All other students should enroll for lecture only, 2 credits. Prereq: Graduate or professional standing
Typically Offered: Occasionally

PATH 751 Cell and Molecular Biology of Aging Credits: 3
Cellular and molecular pathophysiology of human disease typically afflicting the aged, such as Alzheimer's, osteoporosis, Type II diabetes and arthritis, experimental systems to study aging. Prereq: Biochem 501 or equiv
Typically Offered: Occasionally

PATH 799 Independent Reading and Research Credits: 0 - 9
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

PATH 802 Histopathology for Translational Scientists Credits: 3
This course is unique among the graduate curricula, introducing students to the pathogenesis of disease via integration of actual autopsy patient cases. Emphasis is placed on understanding the basic mechanisms of disease at the level of cell, organ, and body, as well as the morphologic expression patterns of selected common specific disease processes. In addition to attending twice-weekly lectures, students will participate in weekly autopsy gross organ conferences as well as microscopic review sessions. In this way, the concepts covered in lectures will be applied and reinforced in the interactive autopsy sessions. Students will also observe at least one full autopsy, gaining a three-dimens
Typically Offered: Fall

PATH 803 Pathogenesis of Major Human Diseases Credits: 3
This course will focus on disease pathogenesis and discussion of the leading disease research model. Throughout the course, we will combine expert clinicians, basic scientists, and literature review on specific major diseases. Prereq: Upper-level general cell biol crse or Path 703
Typically Offered: Occasionally

PATH 807 Immunopathology: The Immune System in Health and Disease Credits: 2
Gain fundamental knowledge of immunopathology and molecular immunology medicine, and have an in-depth research experience that combines pathobiological and translational immunology research. Prereq: None
Typically Offered: Spring

PATH 809 Molecular Mechanisms of Disease Credits: 2
Focuses on molecular mechanisms of diseases. Course will focus on four modules: Neuroscience, cancer biology, growth factor/matrix biology, and immunology. Course will consist of a one hour lecture and a one hour group discussion. Prereq: Path 750 & 803
Typically Offered: Occasionally

PATH 900 Seminar Credits: 0
Prereq: Graduate or professional standing
Typically Offered: Occasionally

PATH 901 Student Seminar / Journal Club Credits: 1
Review of current publications on relevant topics selected by department faculty and trainer. Prereq: Cons inst
Typically Offered: Occasionally

PATH 920 General Pathology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

PATH 925 Laboratory Medicine: Clinical Toxicology Elective-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Not Applicable
PATH 926 Pathology: Clinical Microbiology-Marshfield Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Not Applicable

PATH 951 The Extracellular Matrix, Cell Structure and Function Credits: 2
Critical analysis in discussion format of topics in cell adhesion and cell matrix interactions that regulate cell
signaling mechanisms, cell proliferation and cell invasion. Topics are introduced by lecture followed by
assignment of papers from primary literature for discussion. Prereq: Grad st or cons inst
Typically Offered: Occasionally

PATH 990 Research Credits: 1 - 8
For Grad and medical students desiring advanced pathology; work done under the direction of a senior staff
member. Prereq: Cons inst or Sr Med st
Typically Offered: Occasionally

PEDIATRICS

PEDIAT 646 Cancer Genetics Risk Assessment and Counseling Credits: 2
The purpose of this course is to equip students with the background knowledge needed to provide cancer
genetics counseling services. The information gained from the course will be put into practice during the second
year cancer rotation, collectively preparing students for clinical practice. Students are provided with a background
in cancer genetics from a medical, biological, and clinical perspective. The course includes: general principles and
topics in oncology; familial cancers and cancer syndromes; and management, counseling, social, ethical, and
legal issues. Prereq: Consent of instructor
Typically Offered: Spring

PEDIAT 699 Independent Study Credits: 0 - 9
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PEDIAT 713 Practicum in Genetics Counseling Credits: 3
Introductory practicum in genetics counseling, designed to acquaint the student with the basic practice skills
required, protocols used, and professional issues in genetics counseling. Clinical experiences in a variety of
specialty clinics provide opportunities for initial development of interviewing, data collection, and counseling skills.
Prereq: Enrollment in MS Genetics Counseling Progm
Typically Offered: Occasionally

PEDIAT 714 Practicum in Genetics Counseling Credits: 3
Second semester of the practicum in genetics counseling. Builds upon the first semester course (713) and
provides additional opportunities to develop and improve skills in interviewing, data collection, case management
and counseling. Prereq: Med Genet 713
Typically Offered: Occasionally

PEDIAT 731 Clinical Genetics Credits: 3
Clinical manifestation of human genetic disorders, practical principles of genetic counseling; for students
preparing for genetic counseling and other health care professions, e.g., nursing, physician’s assistant, etc., in
which they will encounter patients/families with genetically determined conditions, disorders, related problems,
and prevention. Prereq: Genetics 466 or equivalent; Genetics 565 & 561 or 562; or consent of instructor. Some
knowledge of basic medical terminology essential
Typically Offered: Occasionally

PEDIAT 737 Contemporary Professional Issues in Genetics Counseling Credits: 1
A series of selected basic issues and topics that are core curricular requirements specific to genetics counseling.
Relevant, non-redundant topics will be scheduled over four consecutive semesters. Prereq: Enrollment in
Genetics Counseling Progm or consent of instructor
Typically Offered: Occasionally

PEDIAT 739 Literature Search Strategies and Analysis in Clinical Genetics Credits: 2
Approaches to literature searching including computerized databases and information retrieval are covered.
Methods are provided for the students to learn to read clinical literature critically, to recognize and assess biases
and to understand the limits of currently available clinical genetics studies. Prereq: Enrollment in Genetic
Counseling Progm in Dept of Med Genetics
Typically Offered: Occasionally
PEDIAT 741 Interviewing and Counseling for the Genetic Counseling I Credits: 1
This is the basic counseling and interviewing practice course for the Genetic Counselor Training Program. Course activities include role play, standardized patients, research/opinion paper, readings, and discussion. Prereq: Enrollment in the genetic counselor training program Typically Offered: Fall

PEDIAT 742 Clinical Embryology and Prenatal Genetics Credits: 1
Review human development (normal and abnormal) and the influence of genetic disorders and teratogens, common indications for prenatal genetic counseling as well as available prenatal diagnosis and screening techniques. This course prepares the genetic counseling student for the prenatal clinical practicum. Prereq: Declared in Genetic Counselor Studies Program Typically Offered: Occasionally

PEDIAT 744 Applications of Biochemical Genetics for Genetic Counselors Credits: 2
This course will introduce to the genetics counseling trainee applications of biochemical and molecular diagnostic tests in clinical practice and will review the major classes of inborn errors of metabolism. Prereq: Enrollment in Genetic Counseling Progm in Dept of Med Genetics Typically Offered: Occasionally

PEDIAT 745 Seminar in Medical Genetic Counseling Research Credits: 1
Course includes invited speakers and journal club participation. Speakers are campus investigators whose research is relevant to medical genetics and genetic counseling. Participation in the Clinical Genetics Center journal club is required. Prereq: Student in the MS in Medical Genetics graduate program (Genetic Counselor Training Program) or consent of the instructor Typically Offered: Spring

PEDIAT 746 Interdisciplinary Care of Children with Special Health Care Needs Credits: 3
Interdisciplinary team care of children with special health care needs across the trajectory of illness presented within the context of family, culture, social determinants of health, community, and healthcare policy. Students introduced to interdisciplinary, collaborative, family-centered team care. Prereq: Grad st and/or cons inst Typically Offered: Occasionally

PEDIAT 812 Third Year Pediatrics Credits: 1 - 6
Prereq: 3rd yr Med st Typically Offered: Occasionally

PEDIAT 813 Advanced Practicum in Genetics Counseling Credits: 4
A two semester program of clinical experiences which explores some of the pertinent professional issues in genetics counseling. The clinical experiences consist of four eight-week rotations which provide many opportunities for trainees to work toward perfecting skills in counseling, interviewing, data collection, case coordination and ongoing follow-along of genetics families. Prereq: Med Genet 713 & 714 Typically Offered: Occasionally

PEDIAT 814 Advanced Practicum in Genetics Counseling Credits: 4 - 5
The second of a two semester sequence of clinical experiences and didactics which provides opportunities for trainees to obtain professional competency in counseling, interviewing, and case coordination; to explore professional boundaries and limits; and learn strategies to develop a self-reflective practice. Prereq: MD GENET 813 Typically Offered: Occasionally

PEDIAT 902 MSTP Physician Scientist Preceptorship in Clinical & Translational Research Credits: 1 - 6
Six-week clinical and translational research preceptorship for students of the Medical Scientist (MD/PhD) Training Program (MSTP). Prereq: Limited to MSTP students in fourth year of medical school who have completed Medicine 901 and Medicine 903 or with instructor consent Typically Offered: Occasionally

PEDIAT 910 Independent Reading and Research for Fourth Year Medical Students Credits: 1 - 12
Prereq: 4th yr Med st Typically Offered: Occasionally
PEDIAT 919 Individualized Fourth Year Clinical Clerkship  Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.)  Prereq: 4th yr Med st
Typically Offered: Occasionally

PEDIAT 920 Pediatric Inpatient Elective  Credits: 2 - 12
The Pediatric Inpatient Elective is an inpatient clinical experience where students will have primary responsibility for patients, performing similarly to an acting intern. This experience does not replace an acting internship, and is meant as a secondary opportunity for students to expand their clinical experiences and knowledge base. Students participating in this course will perform clinical responsibilities including: (1) Demonstrate a comprehensive approach to the care of acutely ill inpatients beginning with admission to the hospital and culminating with the successful transfer of the patient to next level of care. (2) Function with the level of supervision provided to a new intern. (3)  
Typically Offered: Occasionally

PEDIAT 929 General Outpatients Pediatrics-Marshfield Clinic  Credits: 2 - 12
Clinical elective for fourth year medical students.  4th yr Med st
Typically Offered: Occasionally

PEDIAT 930 Pediatrics Sub-Internship in Newborn Medicine (Milwaukee)  Credits: 1 - 12
Clinical elective for fourth year medical students.  4th yr Med st
Typically Offered: Occasionally

PEDIAT 935 Surgical, Neurologic, & Complex Care of the Neonate  Credits: 2 - 4
The elective at AFCH's level IV Neonatal ICU hopes to familiarize students with common topics addressed during the surgical or chronic care of neonates with complex medical issues.  Prereq:  Fourth year medical student status  
Typically Offered: Fall, Spring, Summer

PEDIAT 938 Acting Inpatient Internship - Pediatrics  Credits: 4
As an inpatient pediatric acting intern (AI), you will have primary responsibility for pediatric inpatients, actionable in four domains: 1. Management: As an AI, you will develop actionable management and treatment plans based on your history, physical exam and targeted data. 2. Communications: AIs will communicate with colleagues, primary care providers and consultants. AIs will demonstrate thorough patient hand-offs and communicate concise transfer and/or discharge summaries that will be integral to patient care. 3. Learning: Patient care issues will be the central guide for learning, directing reading, consultation and research. AIs will formulate questions based upon clinical dilemmas, r  
Typically Offered: Fall, Spring, Summer

PEDIAT 940 Adolescent Medicine Clerkship-CSC  Credits: 2 - 12
Prereq: 4th yr Med st  
Typically Offered: Occasionally

PEDIAT 943 Pediatric Cardiology Clerkship-CSC  Credits: 2 - 12
Prereq: 4th yr Med st  
Typically Offered: Occasionally

PEDIAT 946 Child Psychiatry Clerkship-CSC  Credits: 2 - 12
Prereq: 4th yr Med st  
Typically Offered: Occasionally

PEDIAT 950 Pediatric Endocrinology/Diabetes Clerkship-CSC  Credits: 2 - 12
Prereq: 4th yr Med st  
Typically Offered: Occasionally

PEDIAT 953 Clinical Genetics Clerkship-CSC  Credits: 2 - 12
Prereq: 4th yr Med st  
Typically Offered: Occasionally

PEDIAT 956 Hematology-Oncology Clerkship-CSC  Credits: 2 - 12
Prereq: 4th yr Med st  
Typically Offered: Occasionally
PEDIAT 965 Pediatric Neurology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

PEDIAT 966 Pediatric Sports Medicine-CSC Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

PEDIAT 967 Pediatric Pulmonology Clerkship (CSC) Credits: 4 - 12
Third and fourth year clinical elective that focuses on diagnosis and management of a variety of lung diseases in children in outpatient and inpatient settings. Prereq: 3rd or 4th yr Med st
Typically Offered: Occasionally

PEDIAT 968 Community Pediatrics & Advocacy Experience Credits: 2 - 4
Medical students will learn about the aspects of the health care of children which lie outside of the traditional hospital/clinic systems. Gaining a strong appreciation of the social determinants of health, public health measures, and systems-based approaches is a key aspect of this elective. An advocacy project will be formulated and completed as part of this rotation. Prereq: Fourth-year Medical Student status
Typically Offered: Fall, Spring, Summer

PEDIAT 970 Pediatric Rheumatology Credits: 2 - 4
Students will see patients in outpatient clinics, round with inpatient attendings, five times a week, attend pediatric rheumatology conferences, attend weekly pediatric grand rounds, observe procedures and attend one-on-one tutorials. Prereq: Pediatrics 812
Typically Offered: Not Applicable

PEDIAT 990 Research Credits: 1 - 12
Prereq: Graduate or professional standing and consent of instructor
Typically Offered: Occasionally

PHARMACOLOGY

PHMCOL-M 521 Pharmacology I Credits: 3
Pharmacological actions of important drugs, including drugs that affect the peripheral nervous system, the central nervous system, and the gastrointestinal tract. Prereq: DPH-2 or Tox-4 standing; Microbio 303, Physiol 335, Phm Sci 432, Path 404
Typically Offered: Fall

PHMCOL-M 522 Pharmacology II Credits: 3 - 4
Pharmacological actions of important drugs, including hematopoietic, thrombolytic, antihyperlipidemic, immunopharmacologic, anticancer, anti-inflammatory, diuretic, antihypertensive, antianginal, and anti-arrhythmic agents, and agents used to treat congestive heart failure. Prereq: Phm Sci 521
Typically Offered: Spring

PHMCOL-M 610 Cellular and Molecular Neuroscience Credits: 4
Study of original papers leading to an understanding of the molecular basis of electrical activity in neurons. Topics include voltage-sensitive currents, molecular biology of neuronal receptorrs, synaptic transmission and sensory transduction. Lectures supplemented with experimental demonstrations and discussion sessions. Prereq: Zoo 523 or equiv
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

PHMCOL-M 611 Systems Neuroscience Credits: 4
Introduction to the anatomy and physiology of the mammalian nervous system. Lectures will cover the neuroanatomy of the major subdivisions of the human brain, the major sensory and motor systems, and higher order functions. Lab/discussion sections will emphasize readings from the primary literature and hands-on dissections. Prereq: Physiol 610
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

PHMCOL-M 619 Microscopy of Life Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring
PHMCOL-M  625 Toxicology I  Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man.
Correlation between morphological and functional changes caused by toxicants in different organs of the body.
Prereq:  Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHMCOL-M  626 Toxicology II  Credits: 3
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in
mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and
environmental interactions (with toxicant examples) are presented. Prereq:  Env Tox 625 or consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHMCOL-M  630 Cellular Signal Transduction Mechanisms  Credits: 3
Lecture-discussion. Comprehensive coverage of human hormones, growth factors and other mediators; emphasis
on hormone action and biosynthesis, cell biology of hormone-producing cells. Prereq:  Intro biochem (Biochem
501 or 507 & 508) & cell biology (Biocore 303 or Zool 570 or Path750) or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHMCOL-M  699 Independent Study  Credits: 1 - 3
Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHMCOL-M  710 Cytosolic and Nuclear Signaling Mechanisms  Credits: 2
Biochemical basis of drug action. Prereq:  Phmcol-M 630 (formerly Zool 630/ Phmcol-M 875), Biochem 601 or
equiv, & cons inst
Typically Offered: Occasionally

PHMCOL-M  711 Biochemical Pharmacology: Neurotransmitter Receptors/Ion Channels  Credits: 2
A consideration of neurotransmitter receptors and ion channels from a molecular perspective. Emphasis will be on
current concepts in the field. Course is directed to graduate students and outstanding senior undergraduates.
Prereq:  Biochem 501 or cons inst
Typically Offered: Occasionally

PHMCOL-M  717 Pharmacology I  Credits: 4
Lectures and discussions. For students in medicine. Prereq:  Cons inst
Typically Offered: Occasionally

PHMCOL-M  875 Special Topics in Pharmacology  Credits: 1 - 3
Special topics in pharmacology. Topics may vary. Prereq:  Intro crse in biochem, mol biol, and genetics and
cons inst
Typically Offered: Occasionally

PHMCOL-M  901 Seminar and Journal Club  Credits: 1 - 2
Students and staff present research reports of current interest. Prereq:  Cons inst
Typically Offered: Occasionally

PHMCOL-M  914 Therapeutics I - Emphasis on Chronic Diseases  Credits: 2
Students will have a greater knowledge of the use of drugs to treat common illnesses. They will better understand
the appropriate selection of drugs and the management of side effects in treating chronic illnesses. Prereq:  4th
yr Med st or cons inst
Typically Offered: Occasionally

PHMCOL-M  920 Treatment of Cancer Pain-CSC  Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq:  4th yr Med st
Typically Offered: Occasionally

PHMCOL-M  990 Research  Credits: 1 - 12
Research facilities of the department available to qualified students. Prereq:  Cons inst
Typically Offered: Occasionally

PHYSICAL THERAPY
PHY THER 501 Anatomical Applications in Physical Therapy Credits: 2
Application of anatomy and palpatory skills in a clinically-oriented environment. Focus is on applied anatomy, kinesiology, posture, movement analysis, medical terminology. Prereq: DPT st
Typically Offered: Summer

PHY THER 512 Principles of Professional Practice and Administration Credits: 3
Ethics, organization and administration of physical therapy departments. Planning and correlation of hospital and community health services. Study background, organization and responsibilities of health care team members in hospital services and programs. Prereq: DPT st
Typically Offered: Spring

PHY THER 521 Physical Agents Credits: 2
The scientific rationale for and the clinical application of thermal, electrical, and mechanical agents in physical therapy practice. Prereq: DPT st
Typically Offered: Spring

PHY THER 523 Cardiovascular and Pulmonary Aspects of Physical Therapy Treatment Credits: 3
Covers: 1) methods used in physical therapy (PT) management of cardiovascular and pulmonary disease, 2) influence of coexisting cardiovascular and pulmonary dysfunction on PT treatment for other primary diagnoses, and 3) screening for occult cardiovascular and pulmonary disease. Prereq: DPT st
Typically Offered: Fall

PHY THER 527 Foundations of Physical Therapy: Examination and Evaluation Credits: 4
Lab-based course that introduces history taking and physical examination skills germane to assessment of patients with orthopedic and neurologic diagnoses in inpatient and outpatient settings. Introduces clinical decision-making and documentation skills with a focus on examination tests and measures. Labs involve the psychomotor application of exam skills. Outside activities with community partners are an integral part of the course. Prereq: DPT student
Typically Offered: Fall

PHY THER 534 Foundations of Physical Therapy Intervention Credits: 4
Examination for exercise design, implementation, and progression. Range of motion, flexibility, joint mobilization, balance/gait training, proprioceptive neuromuscular facilitation, balance, coordination, agility training, body mechanics, postural stabilization, resistive and endurance training, aquatic therapy, relaxation, manual traction, massage. Scientific rationale for treatment interventions. Prereq: DPT st
Typically Offered: Spring

PHY THER 538 Introduction to the Physical Therapy Profession and Professionalism Credits: 1
Professional attitudes, beliefs, behaviors relevant to physical therapy practice through the Guide to Physical Therapist Practice, APTA history, Generic Abilities, APTA Code of Ethics, APTA Core Values, PT roles and practice settings, professional autonomy, health care teams, professional learning opportunities. Prereq: DPT st
Typically Offered: Fall

PHY THER 539 Physical Therapy Education and Lifespan Learning Issues Credits: 1
Instructional design, learning theories and styles throughout the lifespan, literacy issues, professional presentations and posters, the physical therapist as educator, professional behaviors and emotional preparation for the clinic. Prereq: DPT st
Typically Offered: Spring

PHY THER 540 Psychosocial Aspects of Health Care Credits: 1
Professional attitudes, beliefs and behaviors relevant to physical therapy practice. Communication issues related to caregiving, multidisciplinary teams, conflict management, body image, psychosocial aspects of aging, stages of loss, collaborative care, and family-centered care. Prereq: DPT st
Typically Offered: Fall

PHY THER 541 Issues of Culture and Diversity in Health Care Credits: 1
Students will explore their own backgrounds and will learn constructs of cultural competency; cultural beliefs and practices; impact of diversity issues such as SES, sexual preference, disability, educational level, ethnicity and race; and the culture of medicine. Prereq: DPT st
Typically Offered: Spring
PHY THER  542 Medical Ethics, Jurisprudence, and Health Care Regulations  Credits: 1
Provides an introduction to medical ethics and jurisprudence as they apply to physical therapy. Includes information on health care regulatory agencies and health care regulations.  Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  543 Professional Practice Issues in Physical Therapy  Credits: 1
The final of six seminar courses, this course will present issues that will assist the physical therapist student transition into the profession during and following their final clinical internships.  Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  600 Service Learning Seminar in Physical Therapy  Credits: 1
An experiential course in service learning where students develop, implement, and evaluate a health promotion project for a community partner. This experience concludes with presentations on the projects.  Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  627 Clinical Decision-Making: Tissue Mechanics and Adaptations  Credits: 3
This course addresses the cardiovascular, pulmonary, neuromuscular and connective tissue properties and adaptations that influence human movement through the lifespan. Through an understanding of the system integration the student will gain an appreciation of the physiological complexities underlying human movement.  Prereq:  DPT st
Typically Offered: Spring

PHY THER  628 Clinical Decision Making: Neuromuscular Mechanics and Control  Credits: 4
Addresses the mechanics and control of the neuromuscular and skeletal systems as they relate to human movement. Neural control of movement is discussed in detail with specific emphasis on theories underlying recruitment of muscle in health and disease.  Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  635 Motor Control Dysfunction: Examination, Diagnosis, and Management I  Credits: 5
Application of motor control and motor learning principles to the examination, diagnosis, and management of people with movement disorders stemming from CNS pathology. Emphasis on neurological interventions across the lifespan.  Prereq:  DPT st
Typically Offered: Fall

PHY THER  636 Motor Control Dysfunction: Examination, Diagnosis, and Management II  Credits: 5
Application of motor control and motor learning principles to the examination, diagnosis, and management of people with movement disorders from spinal cord injuries, PNS dysfunction and progressive disorders of the CNS.  Prereq:  DPT st
Typically Offered: Spring

PHY THER  640 Scientific Inquiry in Physical Therapy  Credits: 3
This course focuses on critical evaluation of research findings, a fundamental component of evidence-based practice. Examples from the rehabilitation literature are used to illustrate principles of measurement theory, research design, statistical analysis, and scientific inference.  Prereq:  DPT st
Typically Offered: Fall

PHY THER  641 Current Issues in Rehabilitation  Credits: 1
This course focuses on critical evaluation of published research relevant to physical therapy. In seminar format, students present the results of original research, and lead discussions of the strengths, weaknesses, and underlying theory of the research.  Prereq:  DPT st
Typically Offered: Fall, Spring

PHY THER  642 Research Practicum  Credits: 1 - 3
In this elective course, the students will receive in-depth training in various aspects of research (e.g., literature review, understanding of study methodology, data collection, data reduction and analysis, dissemination of findings). Students will work independently under the supervision of a faculty member from the UW Doctor of Physical Therapy program and will participate in an on-going project for the semester.  Prereq:  Enrollment in the Doctor of Physical Therapy program with satisfactory completion of all courses to date; or upon approval of course instructor
Typically Offered: Fall, Spring, Summer
PHY THER  643 Current Issues in Rehabilitation Research II Credits: 1
Focuses on critical evaluation of published research relevant to physical therapy. In seminar format, students present the results of original research, and lead discussions of the strengths, weaknesses, and underlying theory of the research. Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  664 Clinical Medicine I Credits: 5
Modules in medical screening, pharmacological principles, diagnostic imaging, laboratory testing, psychological disorders, ENT, endocrinology, dermatology, and geriatrics are presented in the context of pathophysiology, differential diagnosis, prevention, and management. Lectures provided by physicians, physician assistants and physical therapists. Case studies are utilized for development of clinical problem solving skills. Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  665 Clinical Medicine II Credits: 4
Common pathological processes, risk factors, clinical manifestations, and pathogenesis of disease for the cardiovascular, pulmonary, hematology, neurology, gastrointestinal, urological, gynecological, musculoskeletal, and rheumatological systems. Medical tests and treatments including medications, diagnostic imaging, and pharmacology principles will also be covered. Prereq:  Declared in Doctor of Physical Therapy program
Typically Offered: Fall

PHY THER  667 Clinical Case Conference Credits: 1
Small student groups will develop patient case reports for class presentation and discussion. Cases will integrate previous didactic knowledge and clinical education experiences prior to students' final clinical internships. Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  668 Health Promotion and Wellness Credits: 2
Physical, psychological, spiritual, social, emotional, intellectual and vocational aspects of wellness. The physical therapist's role in primary, secondary and tertiary prevention; health promotion, and individual and community screening activities for wellness/fitness; and safety and environmental considerations for health and wellness. Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  675 Othotics: Applications in Physical Therapy Practice Credits: 2
Designed to provide the second year physical therapy student the cognitive, affective and psychomotor skills for efficacious examination/evaluation and treatment of patients with conditions requiring orthotic, protective and supportive devices. Specific orthotic topics include: material technology; biomechanics of orthoses; orthotic design and fabrication principles, lower limb orthoses (LLO); spinal orthoses (SO); upper limb orthoses (ULO); and wheelchair seating and propulsion. Provides the foundation for clinical applications in the musculoskeletal (Phy Ther 676/677) and neuromuscular clinical tracts (Phy Ther 635/636) Prereq:  DPT st
Typically Offered: Occasionally

PHY THER  676 Musculoskeletal Dysfunction : Examination, Diagnosis, & Management I Credits: 5
Provides the physical therapy student with the cognitive, affective, and psychomotor knowledge for effective examination, evaluation, diagnosis and management of patients/clients of all ages with various musculoskeletal dysfunctions related specifically to the spine. Prereq:  DPT st
Typically Offered: Fall

PHY THER  677 Musculoskeletal Dysfunction : Examination, Diagnosis, & Management II Credits: 5
Provides the physical therapy student with the cognitive, affective, and psychomotor knowledge for effective examination, evaluation, diagnosis and management of patients/clients of all ages with various musculoskeletal dysfunctions related specifically to the extremities. Prereq:  DPT st
Typically Offered: Spring

PHY THER  678 Physical Therapy Management of Integument Conditions Credits: 2
Designed to provide the third-year physical therapy student with the cognitive, affective and psychomotor skills for efficacious examination/evaluation and treatment of specific integument system conditions. Course topics include the management of patients/clients with wounds, burn, frostbite, insensate and/or disease integument; and congenital and/or acquired amputation and its subsequent prosthetic management. Prereq:  In good standing in the Physical Therapy Program
Typically Offered: Occasionally
PHY THER  700 Clinical Internship I Credits: 2
80-hour physical therapy internship in a pre-determined clinical environment. Prereq: DPT st
Typically Offered: Occasionally

PHY THER  701 Clinical Internship II Credits: 4
160-hour physical therapy internship in a predetermined clinical environment. Prereq: DPT st
Typically Offered: Occasionally

PHY THER  702 Clinical Internship III Credits: 8
Eight-week physical therapy internship in a pre-determined clinical environment. Prereq: DPT st
Typically Offered: Summer

PHY THER  703 Clinical Internship IV Credits: 8
Eight-week physical therapy internship in a pre-determined clinical environment. Prereq: DPT st
Typically Offered: Fall

PHY THER  704 Clinical Internship V Credits: 8
Eight-week physical therapy internship in a pre-determined clinical environment. Prereq: DPT st
Typically Offered: Fall

PHY THER  705 Clinical Internship VI Credits: 8
Eight-week physical therapy internship in a pre-determined clinical environment. Prereq: Good standing in the
DPT program (DPT st)
Typically Offered: Spring

PHY THER  799 Independent Study Credits: 1 - 3
Course content is designed specifically for the individual student. Prereq: DPT st
Typically Offered: Occasionally

PHYSICIAN ASSISTANT PROGRAM

PHY ASST  348 Theories and Practice in Emergency Care Credits: 1
Knowledge, attitudes and skills needed to evaluate and initiate care for acutely ill and/or injured persons. Prereq:
Jr st in the Physician Assistant program or cons inst
Typically Offered: Fall

PHY ASST  402 Pediatrics for Physician Assistants I Credits: 1
Introductory pediatrics course covering problems encountered in the general pediatric population and reinforcing
basic primary care clinical principles. Weekly lectures complementing material presented in concurrent PA 400.
Prereq: Jr st, Phy Asst or cons inst
Typically Offered: Summer

PHY ASST  403 Pediatrics for Physician Assistants II Credits: 1
Continuation of PA 402. Prereq: Jr st, Phy Asst or cons inst
Typically Offered: Summer

PHY ASST  416 Issues in Professional Practice for Physician Assistants Credits: 1
Introduction to issues related to the physician assistant profession. Emphasis on developing an understanding of
health care systems and the role of the physician assistant. Prereq: Jr st in the Phy Asst Program
Typically Offered: Spring

PHY ASST  421 Advanced Patient Evaluation in the Primary Care Setting II Credits: 2
Advanced physical examination and patient evaluation techniques; regional physical examinations; radiology;
advanced evaluation of heart sounds. Prereq: Phy Asst 420
Typically Offered: Spring

PHY ASST  440 Laboratory Medicine for Physician Assistants Credits: 2
This course emphasizes the utilization of laboratory methods for the diagnosis and treatment of disease. The
content focuses on those aspects pertinent to the provision of ambulatory, primary care. Prereq: Jr st, Phy Asst
or cons inst
Typically Offered: Spring
PHY ASST  516 Contemporary Professional Issues - Physician Assistants Credits: 1
Information course for senior physician assistant students in areas of certification and registration, employment, economics, profession organizations and political/legislative topics. Prereq: Sr st in the Phy Asst Program
Typically Offered: Spring

PHY ASST  525 Special Topics in Primary Health Care Credits: 1 - 4
Variable content. Current topics, issues, and material related to the activities of the assistant to the primary care physician. Prereq: Typically Offered: Occasionally

PHY ASST  550 Fundamentals of Clinical Medicine Credits: 3
Introduces the student to information fundamental to understanding clinical medicine principles. Topics addressed include select areas of physiology-pathophysiology, pharmacology, laboratory medicine, and common systemic disease processes. There will also be instruction relative to cognitively approaching the patient. Prereq: Admission to Physician Assistant program
Typically Offered: Summer

PHY ASST  601 Clinical Medicine I Credits: 5
The first of a two course sequence instructing students about the knowledge and skills required to diagnose and treat patient health problems. Topics addressed include genomics, neurology, psychiatry, hematology/oncology, endocrinology, ophthalmology, otorhinolaryngology, and dermatology. Prereq: Jr st, Physician Assistant majors or cons inst
Typically Offered: Fall

PHY ASST  602 Clinical Medicine II Credits: 6
The second of a two course sequence instructing students relative to the knowledge and skills required to diagnose and treat patient health problems. Topics addressed include cardiology, pulmonology, nephrology/urolgy, gastroenterology, rheumatology, geriatrics, and family medicine. Prereq: Jr st. Phy Asst major or Pharm D major
Typically Offered: Spring

PHY ASST  603 Pediatrics Credits: 2
Examines important aspects of primary care pediatrics including assessment of the child patient, preventive health, and pediatric diseases and conditions. The student will also learn examination techniques specific to the pediatric population. Prereq: Admission to Physician Assistant program
Typically Offered: Spring

PHY ASST  610 Clinical Prevention and Community Practice I Credits: 1
The first of a two course sequence addressing the concepts of prevention and population health. Multiple topics will be explored including but not limited to: Health Information Literacy, Immunizations, Nutrition, Exercise, Communication and Counseling Skills, and Integrative Medicine. Prereq: Admission to Physician Assistant program
Typically Offered: Fall

PHY ASST  611 Clinical Prevention and Community Practice II Credits: 1
This is the second of a two course sequence addressing the concepts of prevention and population health and exploring the topics of: health systems/policy, and community aspects of practice. Case examples and community-oriented learning experiences will be incorporated into the course. Prereq: Admission to Physician Assistant program
Typically Offered: Spring

PHY ASST  616 Professional Seminar I Credits: 1
The first of a sequence of Professional Seminars occurring each semester throughout the course of the professional program. Emphasis will be placed on issues specific to the PA profession as well as introduction to the Capstone Project. Prereq: Admission to Physician Assistant program
Typically Offered: Summer

PHY ASST  617 Professional Seminar II Credits: 1
Continuing the professional seminar series, this course emphasizes medical ethics as well as fundamental principles of evidence-based medicine. Research and statistical concepts are taught within the framework of epidemiologic study to develop skills in evaluating and interpreting the medical literature. Prereq: Admission to Physician Assistant program
Typically Offered: Fall
PHY ASST 618 Professional Seminar III Credits: 1
Continuing the professional seminar series, this course emphasizes an understanding of basic research methodology, project development, collaborative research, and project evaluation. Prereq: Admission to Physician Assistant program and completion of antecedent summer and fall semesters
Typically Offered: Spring

PHY ASST 619 History and Physical Examination for Physician Assistants Credits: 4
Provides the primary care physician assistants with the knowledge and physical exam skills to evaluate patients in a variety of settings. Normal and pathological physical findings are discussed. Students master interview skills and physical exam skills applicable to all patients. Selected physical exam techniques are emphasized. Prereq: PA-3 or PA-4 classification; or cons inst
Typically Offered: Summer

PHY ASST 620 Advanced Patient Evaluation I Credits: 1
Advanced physical examination and patient evaluation techniques with an emphasis on the musculoskeletal system; selected physical exam procedures in the complete evaluation of patients; advanced medical interviewing skills. Prereq: Phy Asst 419
Typically Offered: Fall

PHY ASST 621 Advanced Patient Evaluation in the Primary Care Setting II Credits: 1
Instruction in advanced skills in history and physical examination including comprehensive patient history and physical examination, focused history with related male genitalia and rectal exams, and focused history with female breast and pelvic exams. Prereq: Admission to Physician Assistant program
Typically Offered: Spring

PHY ASST 622 Field Experience in Patient Assessment Credits: 2
Prereq: Phy Asst 421
Typically Offered: Summer

PHY ASST 630 Women’s Health for Physician Assistants Credits: 3
Provides Physician Assistant (PA) students a theoretical and clinical background for the assessment, diagnosis and management of problems in obstetrics and gynecology. Prereq: Declared in Physician Assistant Program
Typically Offered: Fall

PHY ASST 640 Clinical Pharmacology I Credits: 2
The first clinical pharmacology course will emphasize pharmacotherapeutics relative to disease processes of the neurologic, psychiatric, hematologic/oncologic, ophthalmologic, otolaryngologic, endocrinologic, and dermatologic systems. Antimicrobial and pain management principles will also be addressed. Prereq: Admission to Physician Assistant program
Typically Offered: Fall

PHY ASST 641 Clinical Pharmacology II Credits: 2
The second Clinical Pharmacology course will emphasize pharmacotherapeutics relative to disease processes of the cardiovascular, pulmonary, renal, urologic, gastrointestinal, and rheumatologic systems. Other topics addressed include geriatric pharmacology, pharmacoeconomics, complementary and alternative medicines, and treatment of sexually transmitted infections. Prereq: Admission to Physicians Assistant Program
Typically Offered: Spring

PHY ASST 648 Emergency Medicine Credits: 2
Fundamental concepts related to the provision of emergency medical care and urgent ambulatory care. Prereq: PA classification or cons inst
Typically Offered: Spring

PHY ASST 650 Diagnostic Methods I Credits: 2
Primary focus is laboratory medicine assessments and ECG interpretation with additional content in imaging modalities, utilization of survey tools, screening assessments, as well as selected specialized examination techniques. Prereq: Admission to Physician Assistant program
Typically Offered: Fall
PHY ASST  651 Diagnostic Methods II Credits: 3
Primary focus is laboratory medicine assessments, heart sounds interpretation, and imaging modalities. Prereq: Admission to Physician Assistant program
Typically Offered: Spring

PHY ASST  660 Clinical Skills Laboratory Credits: 1
This course will be taught as a hands-on clinical skill laboratory to include: dermatologic procedures, splinting, casting, suturing, IV access, venipuncture, injections, joint aspiration/injection, and advanced cardiac life support (ACLS). Prereq: Admission to the Physician Assistant program
Typically Offered: Spring

PHY ASST  670 Fundamentals of Surgery Credits: 1
An introduction to the role of the physician assistant in surgery, fundamental principles of pre-, intra- and post-operative surgical care, operating room aseptic technique, and common strategies to avoid and to treat surgical complications. Prereq: PA 400, PA 401
Typically Offered: Summer

PHY ASST  699 Independent Study Credits: 1 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHY ASST  700 Rural Health for Physician Assistants Credits: 1
Realizing the rural healthcare shortage, this course emphasizes an understanding of healthcare issues unique to rural populations with the intent to attract Physician Assistants to work in these underserved areas. Prereq: Admission to Physician Assistant program and completion of antecedent summer, fall and spring semesters
Typically Offered: Summer

PHY ASST  716 Professional Seminar IV Credits: 1
Emphasis will be on placed on refining the capstone project and writing an initial paper draft. The course will also include instructional content on professional issues in preparation for clinical experiences and clinical practice. Prereq: Admission to Physician Assistant program and completion of antecedent summer, fall and spring semesters
Typically Offered: Summer

PHY ASST  717 Professional Seminar and Capstone I Credits: 1
Emphasis will be placed on completion of capstone projects with preparations for oral and poster presentation of the projects. Also includes instructional content on professional issues in preparation for certification and clinical practice. Prereq: Admission to Physician Assistant program and completion of antecedent semesters
Typically Offered: Fall

PHY ASST  718 Professional Seminar and Capstone II Credits: 1
Emphasis will be placed on preparing poster and lecture presentation for completed capstone projects. Also includes instructional content on professional issues in preparation for certification and clinical practice. Prereq: Phys Asst 717
Typically Offered: Fall

PHY ASST  729 Physician Assistant Preceptorship: Surgery Credits: 8
A 2 month intensive clinical learning experience with an emphasis in surgery and taking place in a variety of off-campus clinical settings under the direction of a supervising physician preceptor. Prereq: Successful completion of the didactic year PA training, with promotion to the clinical year
Typically Offered: Fall, Spring, Summer

PHY ASST  739 Physician Assistant Preceptorship: Family Medicine Credits: 8
A 2 month intensive clinical learning experience with an emphasis in family medicine and taking place in a variety of off-campus clinical settings under the direction of a supervising physician preceptor. Prereq: Successful completion of the didactic year PA training, with promotion to the clinical year
Typically Offered: Fall, Spring

PHY ASST  749 Physician Assistant Preceptorship: Internal Medicine Credits: 8
A 2 month intensive clinical learning experience with an emphasis in internal medicine and taking place in a variety of off-campus clinical settings under the direction of a supervising physician preceptor. Prereq: Successful completion of the didactic year PA training, with promotion to the clinical year
Typically Offered: Fall, Spring, Summer
PHY ASST 759 Physician Assistant Preceptorship: Emergency Medicine Credits: 8
A 2 month intensive clinical learning experience with an emphasis in emergency medicine and taking place in a variety of off-campus clinical settings under the direction of a supervising physician preceptor. Prereq: Successful completion of the didactic year PA training, with promotion to the clinical year training. Typically Offered: Fall, Spring, Summer

PHY ASST 769 Physician Assistant Preceptorship: Elective Credits: 8
A 2 month intensive clinical learning experience with an emphasis in an elective specialty discipline and taking place in a variety of off-campus clinical settings under the direction of a supervising physician preceptor. Elective specialty disciplines include but are not limited to family medicine, internal medicine, emergency medicine, general surgery, cardiothoracic surgery, orthopedic surgery, ENT, dermatology, pediatrics, women’s health and psychiatry/behavioral health. Prereq: Successful completion of the didactic year physician assistant training, with promotion to the clinical year training. Typically Offered: Fall, Spring

PHY ASST 787 Seminar on Integrating Public Health into PA Practice Credits: 1
This course is a requirement for students in the PA Path of Distinction (PoD). The purpose of the Seminar is to provide direction to Physician Assistant (PA) PoD students for the PoD capstone project and to provide an overview of public health, some of its current issues and tools to help become engaged in the communities in which clinical experiences and practice takes place. Prereq: Graduate or professional standing. Typically Offered: Fall

PHYSIOLOGY

PHYSIOL 335 Physiology Credits: 5
Lectures, recitations, demonstrations, and labs. Prereq: Biol or zool & gen chem before enroll. Not open to Fr. L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSIOL 435 Fundamentals of Human Physiology Credits: 5
An advanced human physiology course that explores the major organ systems. The main learning objective is an understanding of the mechanisms through which homeostasis is integrated and maintained. The class includes weekly: three lectures, one discussion, and one inquiry-based laboratory period. Prereq: Junior standing. Zoology 151 or 152 or equivalent. Chem 103 or 104 or 109 or equivalent. Physics 103 or 104 or equivalent. L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHYSIOL 524 Neurobiology II: An Introduction to the Brain and Behavior Credits: 3
An introduction to studies of the human nervous system covering neuroanatomy of the brain, neuronal coding, sensory and motor systems, biological rhythms, arousal, attention, physiological regulation, reward, aversion, learning and memory. Prereq: Zool 523, equiv crse in physiol, or cons inst. L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSIOL 533 Molecular Physiology Credits: 2
This course will introduce functional aspects of mammalian organ systems from a molecular perspective. Human diseases will receive a special emphasis, and diseases will be used to illustrate the connection between molecules and biological function. Prereq: Chem 103 & 104 or 109 or 115 & 116; Physics 201 & 202 or 207 & 208; Zoology 151 & 152 or Bioresearch 303 & 304; Math 221 & 222 or 275 & 276. Recommended but not required: Bioresearch 323, biochem (e.g. Biochem 507 & 508), cell biology (e.g. Zoology 570) L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSIOL 610 Cellular and Molecular Neuroscience Credits: 4
Study of original papers leading to an understanding of the molecular basis of electrical activity in neurons. Topics include voltage-sensitive currents, molecular biology of neuronal receptors, synaptic transmission and sensory transduction. Lectures supplemented with experimental demonstrations and discussion sessions. Prereq: Zoo 523 or equiv. L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall
PHYSIOL 611 Systems Neuroscience Credits: 4
Introduction to the anatomy and physiology of the mammalian nervous system. Lectures will cover the neuroanatomy of the major subdivisions of the human brain, the major sensory and motor systems, and higher order functions. Lab/discussion sections will emphasize readings from the primary literature and hands-on dissections. Prereq: Physiol 610
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSIOL 616 Lab Course in Neurobiology and Behavior Credits: 4
Students will do three independent experimental modules exploring neurophysiology and behavior, each taking 4-5 weeks. Students will work in groups of 2 or 3 and will learn techniques and then develop their own short investigations into each of three separate areas of neurobiology. There will be continual interaction between students and faculty. Prereq: ZOOLOGY/NTP/PSYCH 523 and NTP/PHYSIO/PSYCHOLOGY 524 or NTP/PHMCOL-M/PHYSIO 610 and ANATOMY/NTP/PHMCOL-M/PHYSIO/PSYCHOLOGY 611
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSIOL 625 Brain Cell Cultures and Imaging: A Lab Course Credits: 4
Hands-on laboratory training in neuronal cell culture, live and fixed neuron labeling and microscopy techniques to visualize neurons in culture, as well as image analysis methods. Prereq: Intro crses in biochem, cell biology & anatomy. Enrollment limited to 12 students, authorized by cons inst
L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHYSIOL 629 Molecular and Cellular Mechanisms of Memory Credits: 3
Course will focus on the cell signaling and the resulting structural changes that occur at neuronal synapses during memory formation. The aim is to understand how the synaptic changes underlying memory occur. Prereq: Crse in cellular neurosci (Neurosci 523 or equiv); Biochem 501 or equiv
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHYSIOL 630 Neuronal Mechanisms for Sensation and Memory in Cerebral Cortex Credits: 3
Current literature will be considered in lectures and discussions that provides insight into how the cerebral cortex processes sensory information to generate and store cogent representations of the external world. The course includes laboratory exercises and demonstrations. Prereq: Intro neurosci crse highly recommended: Neurosci/Anat/Phmcol/Physiol 611, Med Sc-M 731, Comp Bio 505, Zool/Neurosci/Psych 523, Psych/Neurophy/Neurosci/Zool 524; or cons inst
L&S Breadth: Biological Science  L&S Level: Intermediate/Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSIOL 675 Selected Topics in Physiology Credits: 1 - 3
Each topic taught once every two years: advanced cardiovascular physiology, advanced respiratory physiology, advanced endocrinology, membrane transport physiology and neurobiology. Prereq: Cons inst
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PHYSIOL 699 Independent Work Credits: 1 - 4
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PHYSIOL 700 Professional Development for Biomedical Graduate Students Credits: 1
Provides graduate students with the skills and knowledge necessary to succeed in science. Topics which are covered include choosing a thesis advisor, grant writing, preparing a seminar presentation, etc. Prereq: Graduate or professional standing
Typically Offered: Occasionally

PHYSIOL 720 Principles of Human Physiology Credits: 4
A basic science of medicine course serving as an introduction to physiology of the autonomic nervous system, cardiovascular system, respiratory system, digestive tract, renal and endocrine systems. Includes lectures, demonstrations, and lab. Prereq: 1st yr Med stdt or Grad stdt with cons inst
Typically Offered: Occasionally

PHYSIOL 725 Muscle Biology Credits: 2
Anatomy, physiology, and biochemistry of muscle. Prereq: Crse in biochem or biomolecular chem & physiol or cons inst
Typically Offered: Occasionally
PHYSIOL  773 Cardiorespiratory Adapations to Environment and Exercise  Credits:  3
Examination of the effects of acute and chronic exercise and exposure to hypo- and hyperbaric environments on physiological responses; mechanisms underlying these responses.  Prereq:  Physiol 720 or cons inst
Typically Offered:  Occasionally

PHYSIOL  799 Independent Reading  Credits:  1 - 4
Prereq:  Cons inst
Typically Offered:  Occasionally

PHYSIOL  901 Seminar  Credits:  1
Prereq:  A course in animal physiology
Typically Offered:  Occasionally

PHYSIOL  990 Research  Credits:  1 - 9
Prereq:  Consent of instructor
Typically Offered:  Occasionally

POPULATION HEALTH SCIENCES

POP HLTH  155 Introduction to the Biology of Aging  Credits:  2
Prereq:  One sem of gen biology at college level
Typically Offered:  Not Applicable

POP HLTH  370 Introduction to Public Health: Local to Global Perspectives  Credits:  3
Introduces students to the principles of public health. Using local and global health problems as examples, students are introduced to epidemiology and evidence-based public health, with a focus on closing the gap between science and practice.  Prereq:  Nutr Sci 375 or a college-level, introductory science or biology crse.
L&S Breadth:  Soc Sci or Nat Sci  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

POP HLTH  375 Introduction to Public Health  Credits:  1
Introduces concepts and methods of epidemiology, health services research, health policy and financing, disease prevention, and public health. Intended as an overview for undergraduates of all disciplines and who might consider advanced degrees in population health sciences or public health.  Prereq:  Jr st or cons inst
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

POP HLTH  380 Contemporary Population Problems for Honors  Credits:  3
This course is designed to identify, examine the nature and evaluate the evidence regarding key population problems affecting modern societies in the developed and developing world. The course emphasizes the development of demographic models as a tool to frame, define and investigate these problems. Examples of problems studied include: relations between population growth and environment, population growth and socioeconomic development, population and emergence of new diseases.  Prereq:  Honors status. Soc 360 or equivalent or consent of instructor
L&S Breadth:  Humanities or Soc Sci  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall, Spring

POP HLTH  451 Introduction to SAS Programming for Population Health  Credits:  2
Use of the SAS programming language for the management and analysis of biomedical data.  Prereq:  Pop Hlth grad student or consent of instructor
Typically Offered:  Fall, Spring

POP HLTH  471 Introduction to Environmental Health  Credits:  3
Impact of environmental problems on human health; biological hazards to human health from air and water pollution; radiation; pesticides; noise; problems related to food, occupation and environment of the work place; accidents. Physical and chemical factors involved.  Prereq:  A course in biology; Jr st
L&S Breadth:  Biological Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered:  Spring

POP HLTH  502 Air Pollution and Human Health  Credits:  3
Toxicologic, controlled and epidemiologic studies on major air pollutants. Overview of study methods, lung physiology and pathology; air pollution sources, types, meteorology, sampling methods, controls and regulations.  Prereq:  Jr st, a course in biology
L&S Breadth:  Biological Science  L&S Level:  Intermediate/Advanced  L&S Credit:  Counts for LAS credit  Typically Offered:  Fall
POP HLTH  503 Public Health and Human Rights: The Care of Vulnerable Children in Africa Credits: 1
Students will understand, critique and constructively engage with global efforts to meet the needs of orphans and other children who are in highly vulnerable situations in Africa. Exploring the tensions and synergies between public health and human rights approaches, this course will prepare students for research, practice or advocacy. It is open to upper level undergraduates (junior and senior standing), graduate students, MPH students, and special students. Approved elective for the Certificate in Global Health.  Prereq:  None
Typically Offered: Fall, Summer

POP HLTH  504 Health Care Quality Improvement in Low Resource Settings Credits: 1
This course will present concepts of quality improvement and will trace the introduction and evolution of QI efforts in low-income countries, and among vulnerable populations worldwide. Students will get hands on training in QI methods and tools, and will explore how QI can strengthen health systems. Further, they will develop an understanding of how QI efforts can be linked to larger policy initiatives such as improved governance, task shifting within health care services, rights-based approaches to health care, and realization of the MDGs. This course will provide a useful introduction to the field of quality improvement and could be used to develop preliminary plans for quality improvement
Typically Offered: Summer

POP HLTH  525 Nursing Leadership for Global Health Credits: 2 - 3
This course is designed to prepare undergraduate and graduate nursing students for leadership in global health (GH) by examining their GH goals in a course framework that integrates knowledge from nursing with contemporary GH knowledge. Directed toward improving health of the global population as a whole, the framework addresses health trends, practice frameworks, the ecological model, ethics, nursing leadership roles, concepts of partnership and evidence-based practice. Students’ learning activity will be tailored to their program level (undergraduate/graduate), their interests and the number of credits they register for.  Prereq:  Junior standing and declared in a Nursing program
Typically Offered: Fall, Spring

POP HLTH  548 The Economics of Health Care Credits: 3 - 4
Analysis of the health care industry. Markets for hospitals and physicians’ care, markets for health manpower, and the role of health insurance.  Prereq:  Econ 301, or Pub Affr 880 or cons inst
L&S Breadth:  Social Science  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered: Spring

POP HLTH  551 Introduction to Biostatistics for Population Health Credits: 3
Course designed for population health researcher. Topics include descriptive statistics, elementary probability, probability distributions, one- and two-sample normal inference (point estimation, hypothesis testing, confidence intervals), power and sample size calculations, one- and two-sample binomial inference, underlying assumptions and diagnostic work.  Prereq:  Declared in the Population Health or Epidemiology graduate program. Students may not enroll if they have taken BMI/STAT 511 or BMI/STAT 541
Typically Offered: Fall

POP HLTH  552 Regression Methods for Population Health Credits: 3
Introduction to the primary statistical tools used in epidemiology and health services research; multiple linear regression, logistic regression and survival analysis.  Prereq:  Pop Hlth/BMI 451 and Pop Hlth/BMI 551 ; or cons inst
Typically Offered: Spring

POP HLTH  553 International Health and Global Society Credits: 3
Major problems in international health from 1750 to the present. Focus on disease epidemiology and ecology; political economy of health; migration; quarantine; race, ethnicity, and health care; international health research; cross-cultural healing; mental and maternal health; growth of international health organizations.  Prereq:  Jr or Sr st, or cons inst
L&S Breadth:  Humanities or Soc Sci  L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered: Fall

POP HLTH  603 Clinical and Public Health Microbiology Credits: 5
Lecture-seminar sessions. Lectures (44) describe microorganisms of clinical and public health significance. Seminar sessions (14) discuss issues and controversies of specimen receiving and processing, bacteremia, serodiagnosis of infectious agents, antimicrobial susceptibility testing, laboratory management, and novel approaches to detect infectious agents.  Prereq:  A course in microbiology
L&S Level:  Intermediate  L&S Credit:  Counts for LAS credit  Typically Offered: Spring
**POP HLTH 621 Introduction to Nutritional Epidemiology** Credits: 1
Techniques used to evaluate relationships of diet to health and disease in human populations; integration of knowledge gained with results of animal and clinical studies toward understanding dietary risk or protective factors for disease. Includes advanced diet assessment and basic epidemiologic approaches. Prereq: Stat 301 or equivalent & Nutr Sci 332 or consent of instructor
Typically Offered: Fall

**POP HLTH 625 Toxicology I** Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body. Prereq: Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall

**POP HLTH 626 Toxicology II** Credits: 3
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented. Prereq: Env Tox 625 or consent of instructor
L&S Breadth: Biological Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Spring

**POP HLTH 640 Foundations in Global Health Practice** Credits: 1
A one-credit interdisciplinary course designed to prepare graduate students in the health sciences and related fields, as well as health professionals who are special students, for specific global health field experiences. Prereq: Grad or health professional stdts; Jr or Sr st, or cons inst
Typically Offered: Fall, Spring

**POP HLTH 644 Interdisciplinary Perspectives on Global Health and Disease** Credits: 1
Addresses a variety of global health topics through study of a specific country. Students will consider health data, health systems, historical and cultural information, and concepts of cultural competence and cultural humility. Prepares students for Pop Hlth 645, Global Health Field Study. Prereq: Grad standing or health professional student; or consent of instructor
Typically Offered: Fall, Spring, Summer

**POP HLTH 645 Global Health Field Course** Credits: 1 - 6
A faculty-led field experience that exposes students to global health work through discussion, observational activities and participation in applied public health activities. Students will gain knowledge about health and disease, learn and practice cross-cultural skills, and explore interdisciplinary approaches to health. Prereq: Varies by section
Typically Offered: Fall, Spring, Summer

**POP HLTH 650 Special Topics** Credits: 1 - 6
Variable content course. Refer to Timetable or contact department for specific list of course sections, titles, prerequisites, and instructors. Prereq: Varies by topic
Typically Offered: Fall, Spring, Summer

**POP HLTH 651 Advanced Regression Methods for Population Health** Credits: 3
Extension of regression analysis to observational data with unequal variance, unequal sampling and propensity weights, clusters and longitudinal measurements, using different variance structures, mixed linear models, generalized linear models and GEE. Matrix notation will be introduced and underlying mathematical and statistical principles will be explained. Examples use data sets from ongoing population health research. Prereq: Pop Hlth 798 and Pop Hlth 552; or cons inst
Typically Offered: Fall

**POP HLTH 652 Topics in Biostatistics for Epidemiology** Credits: 1 - 3
Each module will adopt an in-depth focus on a biostatistical method of particular relevance to epidemiology such as measurement error, missing data, intermediate variables, complex study designs, meta-analysis, splines, propensity scores, causal inference, spatial statistics and resampling. One or more modules will be offered every spring semester. Prereq: BMI/PHS 551 and PHS/BMI 552; and Stat 850 or PHS/BMI 651; or consent of instructor
Typically Offered: Fall, Spring
POP HLTH 660 Communicating Public Health Information Effectively Credits: 1
Designed to improve public health professionals' abilities to communicate with different audiences such as news media, legislators, and the public. Students learn strategies for health communication based on scientific recommendation and apply these skills by planning and executing communication activities used in the field. Prereq: Grad st or health professional student; or cons inst
Typically Offered: Summer

POP HLTH 661 State Level Health System, Payment, and Coverage Reform Credits: 1
Provide and overview of the state health policy initiatives in health care coverage, access, costs, trends in public and private sectors, and current issues and debates about health care reform nationally and in Wisconsin. Prereq: MPH student or Grad student
Typically Offered: Summer

POP HLTH 662 Introduction to Social Marketing in Public Health Credits: 1
The course teaches students about social marketing and applications that apply to public health. It combines didactic presentations with group discussions and in-class exercises. Students are expected to read all assigned materials and complete a group assignment for oral and written presentation. After completion, students will be able to define social marketing, identify appropriate uses of social marketing, apply a model for developing, implementing and evaluating a social marketing campaign. Prereq: MPH or grad student
Typically Offered: Summer

POP HLTH 664 Prevention of Overweight and Obesity Credits: 2
This course is intended to provide students with theoretical and practical knowledge to develop, implement, and evaluate obesity prevention interventions. This course will emphasize pediatric obesity prevention with a focus on nutrition and physical activity health behaviors and environments. Prereq: MPH or grad student
Typically Offered: Fall

POP HLTH 699 Independent Reading Credits: 1 - 5
To gain additional information on specific research problems or advanced training in the areas covered by Prev Med staff. Prereq: Grad st or cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

POP HLTH 703 Quality of Health Care: Evaluation and Assurance Credits: 1 - 3
Implementation, oversight, and management of quality-oriented activities in health care settings. Overview of current and historical activities, approaches, and issues confronting health care related to quality assessment, assurance, and improvement. Prereq: Major or minor in population health, or cons inst
Typically Offered: Occasionally

POP HLTH 709 Translational and Outcomes Research in Health and Health Care Credits: 3
This course seeks to review the conceptualization of translational and outcomes research in health and health care settings; to illustrate basic concepts and methods in research as applied to current issues in health and health care settings; and to understand the diverse perspectives that can be used to inform translational and outcomes research in different organizations, including those based within communities. Prereq: Consent of instructor
Typically Offered: Fall

POP HLTH 711 Introduction to Life Course Epidemiology and Family Health Services Research Credits: 3
This course will deepen our understanding of how health is produced over the life course. A life course approach focuses on how early life experiences influence health across lives and possibly generations. This includes the concept of "linked lives" or how health is produced in the context of familial and social relationships. Using a life course and human development framework, we will explore a number of concepts explaining how exposures in early life lead to health outcomes at later life stages. Namely, we will examine critical or sensitive periods (i.e., "Barker hypothesis" or "fetal or biological programming"), cumulative effects, pathways and trajectories, risk and resilience, and in
Typically Offered: Spring

POP HLTH 712 Integrating Medicine and Public Health Credits: 1
The purpose of this elective is to provide 1st and 2nd year medical students and physician assistant students with an introduction to public health and opportunities to meet and discuss key concepts with an exciting variety of physician leaders who have integrated medicine public health in their careers. Prereq: None
Typically Offered: Fall
POP HLTH 713 Epidemiology of HIV/AIDS Credits: 1
This course provides an overview of the HIV/AIDS pandemic in the United States and worldwide. Topics covered include a review of the epidemiology of HIV/AIDS, the natural history of HIV disease, strategies to prevent and treat HIV, and local and global health impact with a focus on historically significant milestones as well as promising current and future research. Prereq: PHS 797 Introduction to Epidemiology or permission from the instructor
Typically Offered: Summer

POP HLTH 714 Leadership for Population Health Improvement Credits: 3
This course is designed to deepen participants' understanding of their own leadership attributes and style, refine core leadership skills including communication, collaboration, negotiation, and advocacy, and build a framework for advancing population health improvement within and across organizations. Prereq: Students must be in the Leadership in Population Health Improvement on-line Certificate and must have taken PHS 780, PHS 785, and PHS 879
Typically Offered: Spring

POP HLTH 715 Introduction to Community Engagement Credits: 1
The course will provide students with introductory knowledge and skills needed for appropriate community engagement to address community health issues. Prereq: Graduate or professional standing
Typically Offered: Fall, Spring

POP HLTH 717 Principles of Population Medicine and Epidemiology Credits: 3
Focuses on the basic science of public health and population medicine. Students learn about epidemiologic methods to understand the causes of disease, and evidence-based approaches for disease prevention, early detection and treatment, at the individual and community level. Prereq: 1st yr Med st
Typically Offered: Occasionally

POP HLTH 718 Principles of Global Health Care Systems Credits: 2
Addresses and analyzes differences in health status and methods of organizing and providing health services in countries with varying levels of development and types of socio-political systems. Develops an understanding of the various avenues of international cooperation in health. Prereq: Graduate or professional standing
Typically Offered: Fall

POP HLTH 719 Seminar-Contemporary Issues in Health Care Credits: 1 - 2
Lecture, Social, economic and political aspects of health care delivery, including health needs and demands, doctor shortage, health team, models of delivering care, health planning, cost and financing, quality of care and international systems. Prereq: Cons inst
Typically Offered: Occasionally

POP HLTH 740 Health Impact Assessment of Global Environmental Change Credits: 3
Covers contemporary methods of impact assessment in a framework to address global environmental health threats (e.g., global climate change, deforestation and biodiversity loss, and urban sprawl). Issues dovetail well (but do not overlap) with Introduction to Environmental Health. Prereq: Graduate standing or consent of instructor
Typically Offered: Occasionally

POP HLTH 750 Cancer Epidemiology Credits: 2 - 3
This course will cover current knowledge on cancer occurrence and control in human populations. Design and analysis approaches appropriate for cancer epidemiology will also be discussed. Prereq: Prev Med 797, 798; & H Oncol 721 or cons inst
Typically Offered: Occasionally

POP HLTH 780 Public Health: Principles and Practice Credits: 3
An interdisciplinary graduate-level course addressing population-based approaches to community health improvement, and features problem-based learning. A focus on contemporary issues; opportunities to work with a public health mentor and lectures by local, state and national figures. Prereq: Enrollment in the Master of Public Health (MPH) progm at UW-Madison, Grad st, or cons inst
Typically Offered: Fall

POP HLTH 781 Public Health Seminar Credits: 1
Students will explore current public health issues, problems, and solutions while advancing their communication, facilitation, and leadership skills. Prereq: POP HLTH 788
Typically Offered: Fall
POP HLTH 785 Health Systems, Management, and Policy Credits: 3
This course is designed to introduce students to the fundamental characteristics of health care systems. Prereq: Health prof st or grad st; or cons inst
Typically Offered: Spring

POP HLTH 786 Social and Behavioral Sciences for Public Health Credits: 3
Students analyze public health issues from a social and behavioral sciences perspective, and critically examine the strengths and weaknesses of particular theories for developing effective population and community-based intervention programs. Prereq: Grad or health professional student; or consent of instructor
Typically Offered: Spring

POP HLTH 787 MPH Field Experience Seminar Credits: 1
Unique seminar for MPH students to prepare them to work in field or community setting. Prereq: Must be MPH student
Typically Offered: Spring, Summer

POP HLTH 788 The Public Health Field Experience Credits: 1 - 6
The field experience is required for all students in the master of public health (MPH) program and provides students with practical experience in a public health setting. Prereq: POP HLTH 787
Typically Offered: Fall, Spring, Summer

POP HLTH 789 Principles of Environmental Health: A Systems Thinking Approach Credits: 3
This course provides an overview of the field of environmental health, using a systems thinking approach. Systems thinking recognizes that environmental health problem solving is complex and that solutions in one area may have positive or negative impacts on other areas. As an overview it provides an introduction to the history of environmental health within the field of public health from the local to the federal and global level. It will introduce multiple disciplines, methods and approaches to numerous environmental health topics. It includes introduction to methods and tools necessary for assessing human health risks from a variety of environmental hazards and exposures found in air, lan
Typically Offered: Spring

POP HLTH 790 The Physician in Public Health and Public Health in the Physician Credits: 2
This 2-credit elective course, designed exclusively for MD-MPH dual degree students, will provide an opportunity for students to continue or enhance work on the continuum of the MPH fieldwork and/or capstone project during Phase III of medical school through a one-month self-directed learning experience. This elective will be planned well in advance, and the month-long elective will be devoted entirely to a public health-related project that has been approved by the MD-MPH Director. Prereq: Declared in the dual MD-MPH degree program
Typically Offered: Fall, Spring, Summer

POP HLTH 791 Physical Activity Epidemiology Credits: 3
Recommendations for and surveillance of physical activity in the U.S., and associations with health and disease at the population level. Emphasis on measurement techniques, study design and research considerations. Prereq: Grad st or cons inst
Typically Offered: Occasionally

POP HLTH 794 Biological Basis of Population Health Credits: 2
This course covers the physiology, biology and biochemistry of selected disease processes deemed to be important to students of population health sciences by virtue of their clinical significance including incidence, mortality and morbidity. Prereq: Pop Hlth Grad st or MPH stdt; or cons inst
Typically Offered: Fall

POP HLTH 795 Principles of Population Health Sciences Credits: 1 - 3
Introduces students to the multiple determinants of health including medical care, socioeconomic status, the physical environment and individual behavior, and their interactions. Also covered will be the definition and measurement of population health, economic concepts in population health, and ethical and managerial issues in population health improvement. The three credit version of this course is intended for graduate students in the Population Health Sciences and other departments. The one credit version is required for MPH students. Prereq: Declared in Population Health or Master of Public Health program
Typically Offered: Fall
POP HLTH 796 Introduction to Health Services Research Credits: 3
Introduces students to a variety of perspectives, substantive areas and methodological approaches to health services research that provide the foundation for understanding the structure, process and outcomes of the U.S. health care system. Prereq: Pop Hlth 795; or cons inst
Typically Offered: Spring

POP HLTH 797 Introduction to Epidemiology Credits: 3
Lectures and discussions on design, implementation and interpretation of epidemiologic studies; emphasis on methodologic problems in the measurement of disease frequency, natural history and risk factors. Prereq: Grad st or healthcare professional program st or cons inst
Typically Offered: Fall

POP HLTH 798 Epidemiologic Methods Credits: 3
The main emphasis is the design and interpretation of epidemiologic studies. Includes hands-on experience in the evaluation of epidemiologic evidence, the analysis of epidemiologic data, and the discussion of strategies aimed to improve study validity and efficiency. Prereq: Pop Hlth 797; or cons inst
Typically Offered: Spring

POP HLTH 801 Epidemiology of Infectious Diseases Credits: 3
Introduces basic methods to studying the epidemiology of infectious diseases and reviews infectious diseases of major public health importance. Covers the basics of microbiology, immunology, and laboratory-based methods and the principles of disease surveillance, outbreak investigation, mathematical models of disease transmission, and prevention strategies. The etiology, epidemiology, prevention, and treatment of ancient, modern, and emerging infectious diseases will be examined. Prereq: Pop Hlth 797; or cons inst
Typically Offered: Occasionally

POP HLTH 802 Advanced Epidemiology: Etiology and Prevention Credits: 3
The course addresses the epidemiological basis for understanding the etiology and prevention of major diseases. Students integrate information about disease patterns, epidemiological methods, and published studies to identify research questions and design a project. Prereq: Grad st, Pop Hlth 797 & 798; or cons inst
Typically Offered: Fall

POP HLTH 803 Monitoring Population Health Credits: 3
Students learn applied techniques for community health assessment--a core function of public health. Actual population health data (including census, natality, mortality, hospital discharge, behavioral risk factor) are retrieved from the Web for analysis and interpretation. Prereq: Pop Hlth 797
Typically Offered: Occasionally

POP HLTH 805 Epidemiologic Methods 4 Credits: 3
Epidemiologic Methods 4 is directed to PhD and MS students. This course expands on the knowledge and abilities developed in POP HLTH 797 and POP HLTH 798. The goal of this course is to provide students with an opportunity to learn about the rationale and use of study designs that built upon but are substantially different from the most common designs used in epidemiologic research (experimental studies, case-control studies, and cohort studies). The main emphasis of this course is on the design and interpretation of epidemiologic studies. The course will include hands-on experience on the assessment of non-traditional designs as tools to improve the validity and efficiency of epidemiologic st
Typically Offered: Fall, Spring

POP HLTH 806 Advanced Epidemiology: Practice of Epidemiology Credits: 3
The goals of the course are to apply and extend methodologic knowledge learned in prior courses in the Population Health Sciences epidemiology methods sequence (PHS 797, 798, 805; these are prerequisites) to selected key activities of a practicing epidemiologic researcher, including: study implementation; scientific writing and presentation; manuscript and grant peer-reviewing; measurement validation, simulation studies and sensitivity analyses; and, commonly-used epidemiology field instruments and methods. Prereq: Population Health Sciences 797, 798 and 805
Typically Offered: Spring
POP HLTH 807 Reproductive and Perinatal Epidemiology Credits: 2
The course provides students with an overview of the current knowledge and research in reproductive and perinatal epidemiology. Through reading of the primary and secondary literature, students examine issues related to topics such as fertility, preconception health, and perinatal outcomes including maternal morbidity and mortality, pregnancy loss, and infant outcomes. Current evidence-based strategies designed to improve reproductive and perinatal outcomes are reviewed. Long-term health implications of pregnancy and infant health are considered. The classes will be structured to include faculty-led lectures, discussions with guest faculty, and student-led discussions. Prereq: POP HLTH/SOC
Typically Offered: Fall

POP HLTH 820 Graduate Research Seminar Credits: 1
Research seminar for students in the population health graduate program. Presentations by graduate students, professors, public health professionals and experts designed to cover the depth and breadth of research in the field of population health. Prereq: Grad st in population health grad prog
Typically Offered: Fall, Spring

POP HLTH 845 Seminar in Health and Mental Health Economics Credits: 1 - 3
This doctoral seminar provides an overview of current topics in health and mental health economics. The main objectives of this seminar is to acquaint students with important current topics, literature, and scholarship in this field. Prereq: Students who are predoctoral trainees in the NIMH Training Program are expected to take this seminar all semesters it is offered. For other graduate students studying health economics, enrollment is by consent of instructor (to manage seminar size). Graduate-level study in microeconomics and econometrics is expected for any student enrolled in or auditing the course
Typically Offered: Fall, Spring

POP HLTH 848 Health Economics Credits: 1 - 3
Health economics issues including demand, supply and pricing, market structure, medical malpractice, technological change, value of life, role of insurance, and other aspects of uncertainty. Prereq: Grad st
Typically Offered: Occasionally

POP HLTH 849 Genetic Epidemiology Credits: 3
This course will provide an introduction to genetic epidemiology. Topics will include a general overview of genetics and Mendelian and complex inheritance, as well as various elements of study design, including participant ascertainment; phenotype definition; biologic sample selection; genotyping, sequencing, and quality control; measurement of covariates, and choice of analytic methods. We will briefly discuss some of the original study designs and then focus on current study designs for the remainder of the class. Additional emerging topics will be briefly touched upon. Students will complete short homework assignments to enforce concepts learned during lectures, discuss journal articles,
Typically Offered: Every Other Fall

POP HLTH 875 Assessment of Medical Technologies Credits: 3
Basic ideas and tools of cost effectiveness analysis as applied in evaluating medical technologies. Addresses special problems and methods in assessing diagnostic technologies, including ROC analysis, and in measuring health for technology assessment. Uses "classical" and current journal literature. Prereq: Pop Hlth 797 & 800; or cons inst
Typically Offered: Occasionally

POP HLTH 876 Measuring Health Outcomes Credits: 3
Provides a comprehensive understanding of health outcome measures, including generic health status measures, disease-specific measures, and consumer reports of the quality of care. Prereq: Grad stdt in population health & Prev Med 795, 797 & 800; or cons inst
Typically Offered: Occasionally

POP HLTH 879 Politics of Health Policy Credits: 2 - 3
Current major U.S. health policy issues and the critical processes and forces that shape them. The course discusses the politics of health policy; key economic, social and ethical forces; and central players. Prereq: Grad st & cons inst
Typically Offered: Occasionally
POP HLTH 881 Benefit-Cost Analysis  Credits: 3
This course will present the welfare economics underpinnings for evaluating the social benefits and costs of government activities. Issues such as uncertainty, the social discount rate, and welfare weights will be discussed; case studies from the environmental, social policy, and agricultural areas will be studied. Prereq: Grad st, Pub Affr 818 & 880 or Pop Hlth 875 & at least one crse in econ or cons inst
Typically Offered: Fall

POP HLTH 888 Public Health Genomics  Credits: 1
Public health genomics uses knowledge gained from genetic and molecular research along with a consideration of ethical, legal, and social implications (ELSI) to prevent disease and improve the health of the population. Students enrolled in this course will be provided an introduction to public health genomics through a review of fundamental principles of genetics, followed by lectures and discussions on the use of genetic information in clinical and research settings and its implications for disease management and prevention. Students will also gain an awareness of policies that guide public health and will be able to discuss current ethical, legal, and social implications of these policies.
Typically Offered: Spring

POP HLTH 904 Special Topics in Epidemiology  Credits: 1 - 3
In-depth focus on current areas of epidemiologic investigation. Each semester one or more modules (e.g., cardiovascular, cancer, infectious diseases, women's health, international, etc.) will be offered. Prereq: Varies by section
Typically Offered: Fall, Spring, Summer

POP HLTH 915 International Health Systems and Policy  Credits: 2
Designed as an independent study with four modules: International Health System Performance; Health Systems in the Context of Global Health Needs; Health Systems in High Income Countries; and the Politics of Health System Development and Reform. Prereq: Grad or health professional st (not M1-M3 st)
Typically Offered: Fall, Spring

POP HLTH 917 Public Health Field Experience for 4th Year Medical Students  Credits: 4
The 4th year public health elective will introduce the student to the role of physicians working in various fields of public health. Students can work with faculty from the Department of Population Health Sciences, Wisconsin Division of Public Health or Wisconsin State Laboratory of Hygiene on a public health or health policy project. The student will have the opportunity to select a health issue in Wisconsin, conduct a literature review, analyze relevant data, interpret the results, and write a report. Prereq: PHS 911, PHS 912, PHS 913, PHS 916
Typically Offered: Fall, Spring

POP HLTH 955 Seminar - Physical Activity Epidemiology  Credits: 1
Current research developments in physical activity epidemiology. Prereq: Grad st or cons inst
Typically Offered: Occasionally

POP HLTH 990 Research  Credits: 1 - 8
Cons inst. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

PSYCHIATRY

PSYCHIAT 699 Independent Study  Credits: 0 - 9
Prereq: Written cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

PSYCHIAT 712 Foundations in Infant, Early Childhood and Family Mental Health: Dev, Screening, Assessment and Diag  Credits: 3
This course provides students with a comprehensive understanding of the underpinnings of Infant, Early Childhood and Family Mental Health. Content begins with a focus on pregnancy, transition to parenthood and development of typical and atypical attachment relationships. Subsequent sessions provide a knowledge base on early childhood development and on screening and assessment of social, emotional, cognitive, communication, motor and regulatory capacities in infants and young children in the context of their caregiving relationships. Students will become familiar with reliable and valid screening and assessment tools, developmentally appropriate diagnostic nosologies, methods of conceptualiz
Typically Offered: Fall
PSYCHIAT 713 Seminar in Reflective Practices and Mindfulness in Infant, Early Childhood & Family Mental Health I
Credits: 2
This course provides students with a foundation in reflective practices through discussion of cases, infant and family observations and mindfulness experiences as applied to their work with infants, young children and families. These practices allow students to explore and experience ways in which reflective practices strategies may be applied to the understanding of family and child development and to the screening, assessment and diagnoses in infants, young children and families. Students will learn strategies to focus their attention and to develop increased awareness and regulation of sensations, thoughts and emotions and how these skills can support best practices in their work with families. Typically Offered: Fall

PSYCHIAT 714 Consultation in Infant, Early Childhood and Family Mental Health: Advanced Clinical Practice I
Credits: 1
This small group and individualized course offers students an opportunity to reflect upon their work with mothers and partners in the prenatal and postpartum period, infants, young children and their families. Course faculty and a senior, clinical consultant will guide students in exploring their individual responses to the literature, course content and issues raised in their work including personal experience and reactions as well reflecting on the parallel process. The intent is to support the student's professional development in ways that broaden and deepen the effectiveness of their work. Prereq: Enrollment in the Capstone Certificate in Infant, Early Childhood and Family Mental Health. Typically Offered: Fall

PSYCHIAT 715 Therapeutic Interventions, Practices and Policy in Infant, Early Childhood and Family Mental Health
Credits: 3
This course offers students the opportunity to apply knowledge of Infant, Early Childhood and Family Mental Health concepts, assessment and diagnosis to planning and implementation of relationship-based and individual treatment approaches as well as to program development and policy. Students will be introduced to best practices and evidence based multi-disciplinary treatment approaches to address a range of presenting issues, settings, and cultural contexts for vulnerable children who are evidencing social, emotional, behavioral or attentional disturbances and parents with psychiatric disorders. Implications for informing policy across systems of care will be addressed. Typically Offered: Spring

PSYCHIAT 716 Seminar in Reflective Practices and Mindfulness in Infant, Early Childhood and Family Mental Health II
Credits: 2
This course provides students with continued advancement in reflective practices through discussion of cases, infant and family observations and mindfulness experiences as applied to their work with infants, young children and families. Students are provided with additional practice strategies and increasingly in-depth opportunities for introspection self-awareness and supportive discussion towards greater, clarity and engagement in their work. This will include a greater recognition of the parallel process between the nature of their relationship with a parent and the parent's relationship with their child. The focus will be on the application of mindfulness strategies and reflective practice. Typically Offered: Spring

PSYCHIAT 717 Consultation in Infant, Early Childhood and Family Mental Health: Advanced Clinical Practice II
Credits: 1
This small group and individualized course offers students an opportunity to reflect upon their work with mothers and partners in the prenatal and postpartum period, infants, young children and their families. Course faculty and a senior, clinical consultant will guide students in exploring their individual responses to the literature, course content and issues raised in their work including personal experience and reactions as well reflecting on the parallel process. The intent is to support the student's professional development in ways that broaden and deepen the effectiveness of their work. Prereq: None
Typically Offered: Spring

PSYCHIAT 812 Third Year Psychiatry
Credits: 1 - 6
Prereq: Graduate or professional standing
Typically Offered: Occasionally

PSYCHIAT 910 Independent Reading and Research for Fourth Year Medical Students
Credits: 1 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally
PSYCHIAT 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th yr Med st
Typically Offered: Occasionally

PSYCHIAT 921 Behavioral Medicine Clerkship-LaCrosse Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

PSYCHIAT 922 Psychiatric Consultation and Outpatient Experiences Clerkship-CSC/VAH Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

PSYCHIAT 923 Specialized Adult Psychiatry Clerkship-Mendota Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

PSYCHIAT 924 Child Psychiatry Clerkship-Mendota Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

PSYCHIAT 925 Community Psychiatry Clerkship-CSC/Dane County MHC Credits: 2 - 12
Prereq: Graduate or professional standing
Typically Offered: Occasionally

PSYCHIAT 930 Geriatric Psychiatry Clerkship-VAH Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

PSYCHIAT 946 Child Psychiatry Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

RADIOLOGY

RADIOL 619 Microscopy of Life Credits: 3
Survey of state of the art microscopic, cellular and molecular imaging techniques, beginning with subcellular microscopy and finishing with whole animal imaging. Prereq: 2nd semester intro physics including light & optics (e.g. 104, 202, 208) or cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

RADIOL 699 Directed Study Credits: 1 - 12
Directed study projects as arranged with faculty member. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

RADIOL 711 Journal Club Credits: 1
Student Seminar and Journal club for second year students in the Medical Scientist Training Program. Prereq: Consent of instructor
Typically Offered: Spring

RADIOL 722 Clinical Anatomy and Radiology Credits: 4
Anatomy and surgery of head and neck, body wall, cavities and pelvic outlet. Hands on experience in interpreting radiological cross-sectional images. Prereq: Anat 711, Sr Med or Grad st
Typically Offered: Occasionally

RADIOL 813 Radiology Clerkship Credits: 1 - 2
Introduction to principles and technology of diagnostic radiology. Emphasis on fundamental interpretation skills in chest, abdominal and bone films, and in cross-sectional anatomy. Discussions focused on appropriate, cost efficient radiologic workup and image guided surgery. Prereq: 3rd or 4th yr Med st
Typically Offered: Occasionally
RADIOL 902 MSTP Physician Scientist Preceptorship in Clinical & Translational Research Credits: 1 - 6
Six-week clinical and translational research preceptorship for students of the Medical Scientist (MD/PhD) Training Program (MSTP). Prereq: Limited to MSTP students in fourth year of medical school who have completed Medicine 901 and Medicine 903 or with instructor consent
Typically Offered: Occasionally

RADIOL 910 Independent Reading and Research for Fourth Year Medical Students Credits: 1 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

RADIOL 920 Diagnostic Radiology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

RADIOL 923 Clinical Nuclear Medicine Clerkship-CSC/VAH Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

RADIOL 924 General Radiology Clerkship-St Lukes (Milwaukee) Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

REHABILITATION MEDICINE

RHAB MED 699 Independent Study Credits: 0 - 9
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

RHAB MED 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th yr Med st
Typically Offered: Occasionally

RHAB MED 920 Rehabilitation Medicine Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

RHAB MED 923 Physical Medicine and Rehabilitation-Marshfield Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

SENIOR MEDICAL PROGRAM

SR MED 812 Third Year Primary Care Clerkship Credits: 1 - 8
The clerkship will be an outpatient clinic based eight-week continuity experience in two of the three primary care specialties (Family Medicine, Internal Medicine and Pediatrics). Prereq: 3rd yr Med st
Typically Offered: Occasionally

SR MED 813 Integrated Clinical Neuroscience Clerkship Credits: 1 - 6
Introduction to the examination (clinical, laboratory and imaging), diagnosis, and treatment of patients with commonly encountered diseases of the nervous system, as presented from the combined perspectives of medical neurology, surgical neurology, ophthalmology, rehabilitation medicine, and neuroradiology. Prereq: 3rd yr Med st
Typically Offered: Occasionally

SR MED 840 Special Fourth Year Preceptorship/Clerkship Credits: 1 - 16
Individually arranged clinical tutorial/evaluation for fourth year students. Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 852 Preceptorship-Ashland Credits: 1 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite</th>
<th>Typically Offered</th>
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<tbody>
<tr>
<td>SR MED 853</td>
<td>Preceptorship-Beaver Dam</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 854</td>
<td>Preceptorship-Beloit</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 855</td>
<td>Preceptorship-Black River Falls</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 856</td>
<td>Preceptorship-Eau Claire</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 858</td>
<td>Preceptorship-Green Bay</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 859</td>
<td>Preceptorship-Janesville</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 860</td>
<td>Preceptorship-LaCrosse</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
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<tr>
<td>SR MED 862</td>
<td>Preceptorship-Marshfield</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 863</td>
<td>Preceptorship-Milwaukee</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 864</td>
<td>Preceptorship-Monroe</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 865</td>
<td>Preceptorship-Rhinelander</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 866</td>
<td>Preceptorship-Rice Lake</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<td>SR MED 867</td>
<td>Preceptorship-Shawano</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<td>SR MED 868</td>
<td>Preceptorship-Sheboygan</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<tr>
<td>SR MED 870</td>
<td>Preceptorship-Viroqua</td>
<td>1 - 12</td>
<td>4th yr Med st</td>
<td>Occasionally</td>
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<td>Course Code</td>
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<td>SR MED 871</td>
<td>Preceptorship-Wausau</td>
<td>1 - 12</td>
<td>A required course for senior medical students, designed to improve their</td>
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<td>proficiency in patient care by providing them with increasing responsibility</td>
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<td>for the care of patients in a community under the supervision of an</td>
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<td>experienced preceptor.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 872</td>
<td>Preceptorship-Woodruff</td>
<td>1 - 12</td>
<td>Clinical elective for fourth year students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 873</td>
<td>Preceptorship-Prairie du Sac</td>
<td>1 - 12</td>
<td>A required course for senior medical students, designed to improve their</td>
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<td>proficiency in patient care by providing them with increasing responsibility</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 875</td>
<td>Preceptorship-Minong</td>
<td>1 - 12</td>
<td>Clinical elective for fourth year students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 877</td>
<td>Preceptorship-Dodgeville</td>
<td>1 - 12</td>
<td>Clinical elective for senior medical students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 879</td>
<td>Preceptorship-Madison/Meadowood Clinic</td>
<td>1 - 12</td>
<td>Clinical elective for senior medical students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<td>SR MED 880</td>
<td>Preceptorship-Cross Plains</td>
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<td>Clinical elective for senior medical students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>SR MED 882</td>
<td>Preceptorship-Fitchburg</td>
<td>1 - 12</td>
<td>Clinical elective for senior medical students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<td>SR MED 883</td>
<td>Preceptorship-Reedsburg</td>
<td>1 - 12</td>
<td>Clinical elective for senior medical students.</td>
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<td>Prereq: 4th yr Med st</td>
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<td>SR MED 913</td>
<td>Extramural Elective-Preventive Medicine</td>
<td>1 - 44</td>
<td>Prereq: 4th yr Med st</td>
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<td>SR MED 921</td>
<td>Extramural Elective-Anesthesiology</td>
<td>1 - 44</td>
<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 922</td>
<td>Extramural Elective-Family Medicine</td>
<td>1 - 44</td>
<td>Prereq: 4th yr Med st</td>
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<td>SR MED 923</td>
<td>Extramural Elective-Human Oncology</td>
<td>1 - 26</td>
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<td>Typically Offered: Occasionally</td>
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<tr>
<td>SR MED 924</td>
<td>Extramural Elective-Medicine</td>
<td>1 - 44</td>
<td>Prereq: 4th yr Med st</td>
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<td>SR MED 925</td>
<td>Extramural Elective-Neurology</td>
<td>1 - 44</td>
<td>Prereq: 4th yr Med st</td>
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<td>Typically Offered: Occasionally</td>
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SR MED 926 Extramural Elective-Obstetrics and Gynecology Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 927 Extramural Elective-Ophthalmology Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 928 Extramural Elective-Pathology Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 929 Extramural Elective-Pediatrics Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 931 Extramural Elective-Psychiatry Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 932 Extramural Elective-Radiology Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 933 Extramural Elective-Rehabilitation Medicine Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 934 Extramural Elective-Surgery Credits: 1 - 44
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 935 Extramural Elective-Primary Care Credits: 1 - 16
Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 936 Extramural Elective-Emergency Medicine Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

SR MED 937 Extramural Elective Clerkship in International Health Credits: 1 - 8
One to eight week elective as a site outside the U.S. Students will engage in the provision of primary or specialty patient care in ambulatory and/or hospital settings. May include community public health, prevention, and health education learning activities. Prereq: 3rd & 4th yr Med st. Sr Med 812, Medicine 812, Pediat 812, Obs&Gyn 812, & cons inst
Typically Offered: Occasionally

SR MED 951 Training in Urban Medicine and Public Health (TRUIMPH) I: Seminar and Projects Credits: 2
Introduces third year students to health disparities in Milwaukee and community and public health improvement projects. Students will devote four hours per week to projects under the guidance of community mentors and faculty. Prereq: 3rd yr Medical student
Typically Offered: Spring

SR MED 953 Training in Urban Medicine and Public Health (TRUIMPH) II: Milwaukee Credits: 2
Introduces third year medical students to the communities, neighborhoods, healthcare systems and public health initiatives in Milwaukee. Prereq: 3rd yr Medical student
Typically Offered: Spring

SR MED 955 Training in Urban Medicine and Public Health (TRUIMPH) III: Leadership Credits: 2
Provides fourth year medical students with advanced leadership skill building exercises to address community and public health challenges in Milwaukee. Prereq: 4th yr Medical student and completion of SR MED 951 and SR MED 953
Typically Offered: Fall
SR MED 957 Training in Urban Medicine and Public Health (TRIUMPH) IV: Advanced Seminar Credits: 2
A continuation of TRIUMPH I (SR MED 951) that will enable fourth year medical students to explore and address health disparities and to complete a community or public health improvement project with colleagues in Milwaukee. Prereq: 4th yr Medical student and completion of SR MED 951, 953 and 955
Typically Offered: Fall, Spring

SURGERY

SURGERY 699 Independent Study Credits: 0 - 9
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Occasionally

SURGERY 799 Independent Reading and Research Credits: 0 - 9
Prereq: Consent of instructor
Typically Offered: Occasionally

SURGERY 812 Third Year Surgery Credits: 1 - 12
Prereq: 3rd yr Med School st
Typically Offered: Occasionally

SURGERY 910 Independent Reading and Research for Fourth Year Medical Students Credits: 1 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 919 Individualized Fourth Year Clinical Clerkship Credits: 1 - 12
Individually arranged fourth year clinical clerkships. (Student must have Fourth Year Committee approval to count for fourth year credit.) Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 920 General Surgery Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 921 General Surgery Clerkship-Meriter Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 923 General Surgery Clerkship-St. Mary's Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 924 General Surgery Clerkship-LaCrosse Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 925 General Surgery Clerkship-Marshfield Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 926 Surgery for the Non-Surgeon Credits: 4
The student will select four areas of interest from a "menu" of surgical specialties. Through clinic (not operative or inpatient) experiences, it is hoped the student will develop clinical skills in diagnosis, screening, prevention, etc. as it relates to surgical disease. The surgical librarian and faculty will guide the student through a case(s) utilizing EBM research. Prereq: 3rd or 4th yr Med st & completion of all CORE clerkships
Typically Offered: Occasionally

SURGERY 929 Pediatric Surgery Credits: 2 - 4
Students become an integral member of the pediatric surgery service. Development of clinical skills in the diagnosis and treatment of pediatric surgical patients is accomplished through inpatient rounds, clinics, clinical procedures, operative procedures, and surgery conferences. Prereq: Surgery 812
Typically Offered: Occasionally
SURGERY 938 Acting Inpatient Internship - Surgery Credits: 4
As a Surgery Acting Intern (AI), you will have primary responsibility for patients actionable in four domains:
1. Management: As an AI, you will develop management and treatment plans based on your history, physical exam, targeted data, and expected postoperative course. 2. Communication: AIs will communicate with colleagues, primary care providers and consultants. AIs will demonstrate thorough patient hand-offs, and communicate concise discharge summaries that will be integral to patient care. 3. Learning: Patient care will be the central guide for learning, directing reading, consultation and research. AIs will formulate questions based upon clinical dilemmas, research the appropriate literature.
Typically Offered: Fall, Spring, Summer

SURGERY 939 Adult Orthopedics for the Future Orthopedist Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 940 Adult Orthopedics for the Non-Orthopedist Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 941 Adult Orthopedics and Fractures-VAH Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 944 Upper Extremity Orthopaedic Clerkship-Marchfield Clinic Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 948 Otolaryngology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 949 Clinical Otolaryngology Clerkship-LaCrosse Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 954 Peripheral Vascular Clerkship-CSC/VAH Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 956 Plastic and Reconstructive Surgery Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 957 Plastic Surgery-Marshfield Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 960 Transplantation Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 961 Burn Surgery Clerkship (CSC) Credits: 2 - 12
Clinical elective for fourth year medical students. Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 962 Critical Care Surgery-CSC Credits: 2 - 12
Clinical elective for fourth year students. Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 963 Cardiac Surgery Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally
SURGERY 964 Thoracic Surgery Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Fall, Spring, Summer

SURGERY 967 Urology Clerkship-CSC Credits: 2 - 12
Prereq: 4th yr Med st
Typically Offered: Occasionally

SURGERY 968 Urology for the Future Pediatrician Credits: 2 - 4
Clinical urology clerkship for 4th year medical students interested in pursuing a career in pediatrics. Most of the student's time will be spent seeing patients with faculty and residents in the outpatient Urology Clinic at AFCH. However, if students wish to also observe or participate in the Operating Room, they are welcome to do so. Operating Room participation is not expected. Additionally, students will attend weekly educational urologic conferences and will meet in small group sessions with urology faculty for case-based discussions. It is expected that students use evidence based medicine in their case discussions. Students are expected to be clinically active 5 full days per week. Mor
Typically Offered: Fall, Spring

SURGERY 969 Urology for the Future Primary Care Provider Credits: 2 - 4
Outpatient clinical urology clerkship for 4th year medical students interested in pursuing a career in primary care. Most of the student's time will be spent seeing patients with faculty and residents in the outpatient Urology Clinic at UWHC. However, if students wish to also observe or participate in the Operating Room, they are welcome to do so. Operating Room participation is not expected. Additionally, students will attend weekly educational urologic conferences and will meet in small group sessions with urology faculty for case-based discussions. It is expected that students use evidence based medicine in their case discussions. Students are expected to be clinically active 5 full days
Typically Offered: Fall, Spring

SURGERY 970 Urology for the Future Obstetrician/Gynecologist Credits: 2 - 4
Outpatient clinical urology clerkship for 4th year medical students interested in pursuing a career in Obstetrics/Gynecology. Most of the student's time will be spent seeing patients with faculty and residents in the outpatient Urology Clinic at UWHC. However, if students wish to also observe or participate in the Operating Room, they are welcome to do so. Operating Room participation is not expected. Additionally, students will attend weekly educational urologic conferences and will meet in small group sessions with urology faculty for case-based discussions. It is expected that students use evidence based medicine in their case discussions. Students are expected to be clinically active 5 f
Typically Offered: Fall, Spring

SURGERY 971 Accelerated Skills for Surgical Internship Credits: 2
Finishing fourth year students with plans to begin surgical internships. The course is aimed at those who will begin a general surgical internship year or a preliminary internship year but is open to those who are beginning other surgical specialties as well (orthopedics, ENT, plastic surgery, and urology). The primary goal of this course is to better prepare students for the basic expectations of surgical internship. Our specific learning objectives are as follows: A.Patient Assessment Skills a.To learn to admit a surgical patient, with an emphasis on note and order writing b.To evaluate a preoperative patient in the surgical clinic c.To dictate clinic notes, operative notes, and discharge
Typically Offered: Spring

SURGERY 972 InterProfessional Simulation Team Immersion Course Credits: 2
The Inter Professional Simulation Team Immersion Course is a highly interactive, hands-on multidisciplinary course. Students from up to 5 professional disciplines will learn together and practice healthcare case scenarios on high fidelity manikins. Topics discussed include: Healthcare Ethics, leverage the unique roles of interprofessional partners, effective team performance, crisis resource management, clinical dilemmas and critical thinking to improve the quality of patient-centered care, minimize healthcare errors, and positively impact health outcomes. This course uses clinical simulation where communication skills and clinical skills can be learned & practiced in a safe realistic settin
Typically Offered: Fall, Spring, Summer
Fourth year medical students will follow patients longitudinally from clinic to discharge (including rehabilitation and home health care) and consider how these important concepts are encountered and impact care in the clinical arena. The overall strategy for this clerkship is to offer students an opportunity to follow two to four patients from the clinic, to the operating room and through their postoperative course. The concepts covered in this course will be generalizable to other disciplines. Prereq: SURGERY 812

Typically Offered: Fall, Spring, Summer

Students will develop knowledge of how people learn and adult learning principles and how these apply to medicine as well as learn and practice effective interpersonal communication techniques. Students will reflect on their own strategies they use to communicate with patients and develop and implement a plan to improve their communication with patients. Students will reflect on how effective communication and patient education allows physicians to act as advocates for their patients and discuss barriers to patient education and discuss strategies to mitigate those barriers. Finally, students will gain insight into communication and education strategies for patients with communication issues.

Typically Offered: Fall, Spring, Summer
CNP 306 Transitions: Practice, Professional and Personal Credits: 3
This course is designed to advance students' knowledge of nursing as it is embedded in clinical practice, address current and emerging health care trends, and examine healthcare workforce data and health care policy as it impacts opportunities for and impediments to nursing practice. Prereq: Admission to the BSN@Home Program or consent of instructor. Typically Offered: Fall, Spring.

CNP 317 Health Assessment Credits: 3
Techniques of health history and physical examination to ascertain normal from variations of normal health conditions, in addition cultural and developmental variations are considered. Prereq: Admission to the BSN@Home Program or consent of instructor. Typically Offered: Fall, Spring.

CNP 407 Foundations of Professional Nursing Practice Credits: 3
Philosophical perspectives, theories, and standards are applied to the practice of professional nursing. Factors influencing nursing/health care delivery are analyzed. Professional communication skills are enhanced. This is a writing emphasis course. Prereq: BSN@Home student or consent of instructor. Typically Offered: Fall, Spring, Summer.

CNP 441 Chronic Care Management Credits: 3
Exploration of interaction of biological, psychological, social, and environmental factors important to understanding management of chronic conditions at the individual, family, community, and societal levels. Prereq: BSN@Home student or consent of instructor. Typically Offered: Fall, Spring, Summer.

CNP 446 Research and Evidence-Based Practice Credits: 3
Course introduces the importance of research to improve clinical practice, strategies to evaluate the quality of research and evidence, and increase integration of research into practice. Prereq: BSN@Home student or consent of instructor. Typically Offered: Fall, Spring, Summer.

CNP 447 Leadership and Management Credits: 3
Examines nursing leadership and management using relevant theories and concepts. Analyze decision-making in relation to communication, delegation, supervision and group process. Prereq: BSN@Home student or consent of instructor. Typically Offered: Fall, Spring, Summer.

CNP 453 Information Management and Healthcare Technology Credits: 3
Utilize computer and information/decision science to support quality and safety in health care. Explore informatics issues and examine nursing's role in healthcare technology. Opportunities to use and master various healthcare technologies and healthcare data will be given. Prereq: BSN@Home student or consent of instructor. Typically Offered: Fall, Spring, Summer.

CNP 454 Community Health Nursing Credits: 3
Nursing care of populations and communities to facilitate optimal health outcomes. Prereq: BSN@Home student or consent of instructor. Typically Offered: Fall, Spring, Summer.
CNP 490 Special Topics in Nursing  Credits: 1 - 4  
The special topics course is designed to provide a planned, systematic analysis of topics, issues and problems in the area of nursing. Prereq: Cons inst  
Typically Offered: Fall, Spring, Summer

CNP 519 Capstone Practicum for Registered Nurses  Credits: 4 - 6  
Practicum for RN's based on the application of clinical decision-making in order to provide comprehensive nursing care to persons in inpatient and/or community settings. Prereq: Nursing 406 or cons inst  
Typically Offered: Fall, Spring

NURSING

NURSING 100 Introduction to the Nursing Profession  Credits: 1  
Introduction to the breadth of careers and educational pathways in the nursing profession. Students explore personal interests, capacities, and career goals in relation to nursing career options. Prereq: PRN classification or consent of instructor  
Typically Offered: Fall, Spring

NURSING 105 Health Care Systems: Interdisciplinary Approach  Credits: 2  
Introduction to health care systems. Factors affecting health and the value placed on health, the delivery of health care in different settings, the roles of various health workers, and the sociological and economic aspects of health care. Prereq: Open to all undergrads  
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

NURSING 212 Human Responses to Health and Illness I  Credits: 4  
Builds on students' previous work in the biological sciences, social sciences and the humanities. Introduces the physiological, psychosocial and cultural basis of health and the role of the nurse in promoting optimum function and well-being. Prereq: NUR classification, or cons inst  
Typically Offered: Fall

NURSING 219 Clinical Nursing I  Credits: 3 - 4  
Beginning practice of nursing in laboratory and selected health care settings. Prereq: Nurs 212 or con reg; Nurs 301 or con reg; Child & Fam 362 or 363 or equiv, or con reg; or cons inst  
Typically Offered: Fall

NURSING 299 Independent Reading  Credits: 1 - 3  
Prereq: Sophomore, Junior, or Senior standing & consent of instructor  
Typically Offered: Fall, Spring

NURSING 301 Health History and Patient Assessment  Credits: 3  
Basic techniques of writing a health history and conducting a routine assessment of a patient's health status. Prereq: NUR, NRN or PA classif; Anat 328 or equiv or con reg; Physiol 335 or equiv or con reg; or cons inst  
Typically Offered: Fall

NURSING 302 Introduction to Systematic Investigation  Credits: 3  
Characteristics of qualitative and quantitative data and research process; analysis and evaluation of patient data and published nursing studies. Prereq: NUR or NRN classification & Jr st or cons inst  
Typically Offered: Spring

NURSING 310 Mental Health and Mental Illness: Implications for Nursing  Credits: 3  
Theoretical foundations for nursing care; role of the nurse in community mental health settings, hospital settings, and psychiatric therapies. Prereq: Child & Fam 362 or 363 or equiv, or cons inst  
Typically Offered: Fall, Spring

NURSING 312 Human Responses to Health and Illness II  Credits: 4  
Focus is on human responses to adult illnesses. Those adult illnesses that are highly prevalent or can induce potentially life-threatening human responses will be emphasized. Prereq: Nurs 212, phmcol or con reg, pathophysiol or con reg, Nurs 219 or con reg  
Typically Offered: Spring
NURSING 319 Nursing Care in the Inpatient Setting Credits: 4
Clinical practice in the inpatient setting based on application of clinical decision making in the nursing care of persons with selected physiological and psychosocial problems resulting from pathophysiological processes and the illness experience. Prereq: Nurs 212, Nurs 219 or cons inst, Nurs 312 or con reg
General Education: COM B Typically Offered: Spring

NURSING 322 Community Health Nursing Credits: 3
Introduction to community health nursing roles focusing on aggregates as targets of public health services. Content includes epidemiology, structure of public health services, levels of prevention, and aggregate assessment. Prereq: Chld & Fam 362 or 363 or equiv, Nurs 105, Nurs 212, or cons inst
Typically Offered: Fall, Spring

NURSING 325 Professionalism in Health Care Settings Credits: 2
Focuses on advancing knowledge of professional attributes and core competencies in the role of a nurse and how they are used in complex care settings. Students gain an understanding of concepts of leadership, ethics, and advocacy. Students broaden their understanding of nursing's role in the health care delivery system regarding quality improvement, care coordination, and palliation. Prereq: NURSING 315
Typically Offered: Spring

NURSING 332 Essentials of Family-centered Perinatal and Pediatric Nursing Credits: 3
Introduces principles of family-centered nursing care of women during the perinatal period and of children from infancy through adolescence. Examines nursing strategies for health promotion, illness prevention, and coping with stressors frequently encountered during childbearing, illness, injury, hospitalization. Prereq: Chld & Fam 362 or 363 or equiv; and Nursing 212; Nursing 219 may be taken concurrently; or cons inst
Typically Offered: Spring

NURSING 360 Human Sexuality Credits: 2
Concepts of human sexuality and their significance to nursing interventions with clients in various states of health. Prereq: Jr st; Anat 428 or equiv; Physiol 335 or equiv; Chld&Fam 362 & 363 or equiv; or cons inst
Typically Offered: Occasionally

NURSING 401 Legal and Social Forces in Nursing Credits: 3
Legal, social, and ethical forces affecting the education of nurses and the practice of nursing. Prereq: Nurs 219
Typically Offered: Spring

NURSING 415 Organizational Influences on Interdisciplinary Practice Credits: 3
Analysis of major organizational factors affecting the practice of clinicians in health care delivery organizations. Prereq: Nurs/S&A Phm/Soc Wk/Ther Sci 105; Nurs 319 for Nursing majors; or cons inst
Typically Offered: Spring

NURSING 419 Clinical III: Community Health Nursing Practicum Credits: 4
This practicum, located in community health nursing agencies, will provide students opportunities for practice directed toward preservation and promotion of health and prevention of disease, illness and injury in populations represented by the aged, parents, children and youth. Prereq: Nurs 319, 322, 332, 433 or cons inst. Nurs 322 &/or 332, 433 may be taken concurrently
Typically Offered: Fall, Spring

NURSING 422 Advanced Concepts in Nursing Practice Credits: 3
Content is presented to develop skill in the application of concepts and to develop clinical knowledge for nursing practice. Pattern recognition is used to analyze practice concepts within an illness-wellness trajectory, across settings and with diverse populations. Prereq: Nurs 419 or con reg or cons inst
Typically Offered: Fall

NURSING 433 Essentials of Gerontological Nursing Credits: 3
Health and functional ability of the elderly population as they relate to nursing practice are the focus of this course. Common health problems found in this population are studied with an emphasis on prevention and nursing management. Prereq: Chld&Fam 362 or 363 or equiv; and Nursing 212; Nursing 219 may be taken concurrently; or cons inst
Typically Offered: Fall
NURSING 449 Nursing Care of Persons and Families with Complex Health Care Needs Credits: 4
The overall goal is the provision of comprehensive nursing care to a specific patient population. Scientific, theoretical, and experiential knowledge will form the basis for student nursing practice. Prereq: Nurs 419
Typically Offered: Fall, Spring

NURSING 470 School Nursing in the Context of Community Health Practice Credits: 2 - 3
Theoretical foundation for community health nursing (CHN) applied to school nurse settings. Students acquire the theoretical and practical foundations for establishing and maintaining school health nursing services. Content is drawn from nursing and public health sciences and includes topics of health promotion, disease prevention, epidemiology, evidence based practice, ethics, and the role of the CHN. The nursing process is applied with a focus of providing care at the individual through the population level. The ecological model is used to analyze the influence of socioeconomic, environmental, political, and cultural health determinants. ADN nurses who have not had a community health nursi
Typically Offered: Fall, Spring

NURSING 472 Practicum in School Nursing Credits: 6
Direct work with the school nurse and school staff in planning and providing health services to school age youth and school personnel. Prereq: Nurs 470, Jr st or NRN classification or cons inst
Typically Offered: Fall, Spring

NURSING 490 Mental Health Nursing Across the Care Continuum Credits: 3
This course is designed to expand the knowledge and skills necessary for providing professional nursing care to individuals, groups, and families affected by mental illness in any setting. Particular attention is focused on complex health conditions and development of clinical reasoning to support competent nursing practice. Prereq: Declared in the BSN@Home program
Typically Offered: Every Other Spring

NURSING 510 Culturally Congruent Practice Credits: 3
Seminar assists students in building self-awareness, increasing knowledge, and advancing clinical skills needed to provide culturally congruent, person-centered care to patients with diverse backgrounds. Prereq: None
Ethnic Studies: Yes Typically Offered: Fall, Spring

NURSING 517 Digital Health: Information and Technologies Supporting Consumers and Patients Credits: 3
This course is appropriate for undergraduate or graduate students considering careers in the health or allied health professions, service professions, and the social services, particularly those concerned with the medically under served and members of racial/ethnic/socioeconomic minority groups. This course covers topics within the US context including: the identification of appropriate and accurate materials for consumer health and family education; the ethical and organizational policy issues that arise when providing consumer and family health information in different settings; the role of the public media in disseminating health information; the health-related information needs and prefe
L&S Breadth: Social Science L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring

NURSING 523 Clinical Exercise Testing & Training Credits: 3
Physiological basis and methods of human exercise testing and training. Topics: clinical exercise physiology, exercise testing protocols, cardiopulmonary monitoring, basic ECG interpretation, exercise prescription. Prereq: Kines 314 or cons inst
Typically Offered: Fall, Spring, Summer

NURSING 525 Nursing Leadership for Global Health Credits: 2 - 3
This course is designed to prepare undergraduate and graduate nursing students for leadership in global health (GH) by examining their GH goals in a course framework that integrates knowledge from nursing with contemporary GH knowledge. Directed toward improving health of the global population as a whole, the framework addresses health trends, practice frameworks, the ecological model, ethics, nursing leadership roles, concepts of partnership and evidence-based practice. Students’ learning activity will be tailored to their program level (undergraduate/graduate), their interests and the number of credits they register for. Prereq: Junior standing and declared in a Nursing program
Typically Offered: Fall, Spring
NURSING 564 Nursing and Health Informatics Credits: 3
Identification of computer and information technologies to support nursing in the diagnosis and treatment of human responses to health, illness, and development challenges. Examination of information systems used in clinical practice, information processing challenges and nurses' roles in the evaluation of informatics solutions. Ethical, legal and social issues related to informatics in patient care. Prereq: Jr St or cons inst
Typically Offered: Summer

NURSING 590 Contemporary Practices in Nursing Credits: 1 - 4
Health problems and their nursing management, e.g., critical care nursing, health promotion and prevention of disease, nursing of developmental disabilities. Prereq: Cons inst
Typically Offered: Fall, Spring

NURSING 601 Advanced Assessment Credits: 3 - 4
Course focuses on development of advanced assessment and physical examination skills. Separate sections focus on different settings (acute care, primary care) and clinical populations (adult, aging, pediatrics, women's health). Prereq: Intro crse in health & physical assessment. Grad st or cons inst
Typically Offered: Fall

NURSING 605 Pharmacotherapeutics for Advanced Practice Nurses Credits: 3
Pharmacotherapeutics content and application for advanced practice nursing. Emphasis on selection of appropriate therapeutics, development of clinical decision-making skills, and examination of legal, ethical, and safety issues in prescribing medications. Prereq: An undergrad pharmacology crse
Typically Offered: Summer

NURSING 657 Clinical Psychopharmacology Credits: 3
This course examines the history, rationale and mechanism of action of drugs used in the treatment of mental health and behavioral disorders. Emphasis is placed on neurobiological processes underlying psychopathology and clinical application of evidence-based pharmacological interventions across the lifespan. In addition, the course focuses on pharmacokinetics, pharmacodynamics, side-effects, drug interactions, therapeutic monitoring and variations in special populations. Finally, this course will review prescriptive authority, the potential impact of the current mental health care service system and ethical decision making for health care professionals. Prereq: Declared in Doctor of Nurs
Typically Offered: Summer

NURSING 660 Relaxation Strategies: Tools for Practice Credits: 1
Addresses the physiology of stress and relaxation, various strategies for facilitating relaxation and evidence for the same; provides opportunities to experience selected relaxation strategies. Prereq: Preference given to those with Jr st and above
Typically Offered: Fall, Spring

NURSING 680 Honors Seminar Credits: 1
Provides honors students with an opportunity to learn about faculty research interests. Prereq: Admission to the School of Nursing honors prog
Typically Offered: Fall

NURSING 681 Senior Honors Thesis Credits: 1 - 2
The senior honors thesis is directed experience with selected aspects of the research process. One credit is required. Prereq: Honors admission; cons inst
Typically Offered: Fall, Spring, Summer

NURSING 682 Senior Honors Thesis Credits: 1 - 2
The senior honors thesis is a directed experience with selected aspects of the research process. One credit is required. Prereq: Honors admission, cons inst, Nursing 681
Typically Offered: Fall, Spring, Summer

NURSING 698 Directed Study in Nursing Credits: 1 - 6
Directed study offers the student an opportunity to work with a faculty member on an individual study program. Prereq: Jr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

NURSING 699 Directed Study in Nursing Credits: 1 - 4
Prereq: Jr st & cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer
NURSING 700 Nursing Research I Credits: 3
Techniques of data analysis, research design, tabulation and statistical computation, scale construction, coding and computer processing of data in nursing research. Prereq: Grad st or cons inst
Typically Offered: Occasionally

NURSING 701 Interpretive Research in Health Care Settings Credits: 3
This course is designed to introduce graduate students to a variety of interpretive research methods and to explore how these methods have been/could be used to examine health care in general and nursing care in particular. Prereq: Master's level or above
Typically Offered: Occasionally

NURSING 702 Health Promotion and Disease Prevention in Diverse Communities Credits: 3
Health promotion and disease prevention interventions are examined for populations, incorporating multidisciplinary approaches. Focuses on developing increased knowledge, appreciation, and skills for health promotion and disease prevention among diverse communities. Addresses epidemiological, individual, socio-economic, and environmental factors related to health status. Proposes strategies to reduce health disparities among vulnerable populations. Prereq: Graduate standing
Typically Offered: Occasionally

NURSING 703 Health Care and Public Policy in the US Credits: 3
This course addresses major U.S. health policy issues and the institutions, processes and forces that shape them. Policy issues include Medicare, Medicaid, the uninsured, public health, state and federal health care reform, policy implementation, managed care and others. The course addresses health care policy in terms of legislative and executive processes at the state and federal levels; key forces involved in policy making, including economic, social, ethical and political factors; and the central players involved in policy-making, including elected officials, interest groups, the press and legislative staff. Discussion will include the role and responsibility of nurse leaders and the i
Typically Offered: Occasionally

NURSING 704 Leadership in Advanced Practice Nursing I Credits: 3
Transition and expansion of leadership role for advanced practice. Emphasis on the development of effective, ethical leadership styles; interpretation of legal and professional requirements and regulations; examination of the ethics, values, beliefs, and norms of decision-making in interdisciplinary, collaborative practice. Prereq: Grad st in nursing
Typically Offered: Occasionally

NURSING 705 Seminar in Interdisciplinary Clinical Research Evidence Credits: 2
Exploration of interdisciplinary clinical research questions including strategies for assessing the evidence and conducting a systematic review of research. An interdisciplinary perspective is emphasized throughout the course. Prereq: Grad stdts with at least one grad rsch crze, or postdoc trainees, or cons inst
Typically Offered: Occasionally

NURSING 706 Nursing Research Credits: 3
Examines a variety of research methods available to address health care problems and issues in general, and nursing in particular. Prereq: Grad st in nursing or cons inst
Typically Offered: Fall

NURSING 707 Leadership for Advanced Practice Nurses Credits: 1
Develops professional leadership skills and practices within nursing health care systems with emphasis on interprofessional collaboration. This course is specifically designed for post masters advanced practice nurses. Prereq: Master Degree (Nursing)
Typically Offered: Fall

NURSING 708 Ethics for Advanced Practice in Health Care Credits: 2
The emphasis of the course is on exploration of ethical knowledge development with a focus on clarification, analysis and justification relevant to advanced nursing practice; examination and development of learners’ moral understanding; and distinguishing between moral and other professional responsibilities. Prereq: Admission to the DNP program or cons inst (e.g., for other graduate students in health sciences)
Typically Offered: Summer
NURSING 713 Family Process, Health and Illness Credits: 3
Analysis of structure and dynamics of traditional and variant family forms utilizing selected conceptual frameworks. Family utilization and health belief systems. Application of substantive and theoretical family research to improvement of family and health illness system transactions. Selected family contacts. Prereq:
Grad st and general course in the family
Typically Offered: Occasionally

NURSING 719 Independent Field Study in Clinical Nursing Credits: 1 - 6
Concentrated study and field work in a selected area of clinical nursing. Prereq: Grad st or cons inst
Typically Offered: Occasionally

NURSING 721 Advanced Medical-Surgical Nursing Credits: 3
Contemporary approaches to the field with emphasis on the potential of each for integrating concepts from the basic sciences and medicine and for defining problem areas for study and research in nursing. Prereq:
Graduate or professional standing
Typically Offered: Occasionally

NURSING 722 Advanced Practice Nursing Theory: Adults and Older Adults Credits: 3
This course will examine theoretical perspectives and evidence-based approaches to human responses to health and illness during adulthood and old age. Concepts and research from multiple disciplines will be examined as a framework for reflective practice with adults. Prereq: Grad st or cons inst
Typically Offered: Fall

NURSING 726 Foundations for APN Clinical Practice I Credits: 3
Designed to advance students¿ knowledge for clinical decision making. Health promotion, illness prevention and common health conditions are emphasized. Content tailored to APN role and population focus. Prereq: N601, N605, N811, concurrent enrollment in N728, or consent of instructor
Typically Offered: Fall

NURSING 727 Foundations for APN Clinical Practice II Credits: 3
Designed to continue to advance students¿ knowledge for clinical decision-making. Complex and chronic health conditions are emphasized while continuing to promote health maintenance within the context of existing health problems. Content tailored to APN role and population focus. Prereq: N726, N728, concurrent enrollment in N729, or consent of instructor
Typically Offered: Spring

NURSING 728 Advanced Practice Clinical Application and Role Development I Credits: 1 - 4
Supervised clinical practicum focuses on the continued development and application of advanced health promotion, assessment and clinical management skills within the context of chronic illness and complex health issues. Practicum tailored to APN role and population focus. Prereq: N728, concurrent enrollment in N727, or consent of instructor
Typically Offered: Spring

NURSING 729 Advanced Practice Clinical Application and Role Development II Credits: 1 - 4
Supervised clinical practicum focuses on the continued development and application of advanced health promotion, assessment and clinical management skills within the context of chronic illness and complex health issues. Practicum tailored to APN role and population focus. Prereq: N728, concurrent enrollment in N727, or consent of instructor
Typically Offered: Spring

NURSING 731 Clinical Genetics Credits: 3
Clinical manifestation of human genetic disorders, practical principles of genetic counseling; for students preparing for genetic counseling and other health care professions, e.g., nursing, physician's assistant, etc., in which they will encounter patients/families with genetically determined conditions, disorders, related problems, and prevention. Prereq: Genetics 466 or equivalent; Genetics 565 & 561 or 562; or consent of instructor. Some knowledge of basic medical terminology essential
Typically Offered: Occasionally

NURSING 733 Dynamics of Childbearing: Birth and the Postbirth Period Credits: 3
Theory, research, and clinical data which direct the nursing management of women during birth and postbirth period. Prereq: Nurs 540 or equiv; Grad st; Nurs 700 or equiv or con reg; con reg in Nurs 613 or 719 or access to a clinical population; or cons inst
Typically Offered: Occasionally
NURSING  735 Health Promotion and Disease Prevention for Women Across the Lifespan  Credits: 3  
Identification of health concerns for women, recognizing differences among age, socioeconomic, and ethnic groups; synthesis of biophysiological, psychosocial, and cultural influences of such health concerns; analysis and proposal of interventions to promote overall health and to prevent problems among women.  Prereq:  Grad st and a course in research design or cons inst  
Typically Offered:  Occasionally

NURSING  740 Issues in Nursing Care of Children with Chronic Illness in the Schools  Credits: 1  
Seminar provides an opportunity for students, faculty, and professionals in the community to discuss emerging issues in the field of school nursing care of children with chronic health conditions. Seminar introduces students to professional development issues commonly experienced by professionals working with children with chronic illnesses and how these issues impact the nurse practicing in the school setting.  Prereq:  Graduate standing, certificate student or consent of instructor  
Typically Offered:  Summer

NURSING  741 Advanced Practice Nursing Theory: Family Process & Child Development  Credits: 3  
Analyzes selected family and child development theories and research that inform advanced practice nursing. Applies these concepts to assess child and family needs, enhance the parent-child relationship, and develop family-centered, culturally responsive interventions in health and illness.  Prereq:  Grad st or cons inst  
Typically Offered:  Fall

NURSING  746 Interdisciplinary Care of Children with Special Health Care Needs  Credits: 3  
Interdisciplinary team care of children with special health care needs across the trajectory of illness presented within the context of family, culture, social determinants of health, community, and healthcare policy.  Students introduced to interdisciplinary, collaborative, family-centered team care.  Prereq:  Grad st and/or cons inst  
Typically Offered:  Occasionally

NURSING  747 Practicum in a Selected Functional Area  Credits: 0 - 8  
Guided practicum in teaching consultation, or clinical specialist roles; students assigned to a teaching department, a nursing unit, or a cooperating community health agency according to interest.  Prereq:  Grad st & cons inst  
Typically Offered:  Occasionally

NURSING  751 Advanced Practice Nursing Theory: Psychiatric Mental Health  Credits: 3  
Analysis and integration of selected theories and models in psychotherapy, neuroscience, mental health, psychiatric disorders, and advanced psychiatric mental health nursing in complex care settings with diverse patients, communities, and populations.  Prereq:  Grad st or cons inst  
Typically Offered:  Occasionally

NURSING  753 Advanced Practice Nursing with Common Mental Disorders  Credits: 3  
Students will critically examine a wide range of clinical research literature. Seminar discussions will focus on advanced nursing practice and recovery and rehabilitation strategies with common anxiety, depression, substance, and eating disorders.  Prereq:  Grad st or cons inst  
Typically Offered:  Occasionally

NURSING  754 Advanced Practice Nursing: Severe Mental Disorders  Credits: 3  
This course focuses on advanced psychiatric-mental health nursing. Students will critically examine severe mental disorders within the context of recovery and rehabilitation.  Prereq:  Grad st or cons inst  
Typically Offered:  Occasionally

NURSING  755 Advanced Practice Nursing: Mental Health Promotion  Credits: 3  
This course addresses theory, research and practice in mental health promotion and mental illness prevention. Content includes a critical analysis of major issues in conceptualizing mental health, studying stress and coping, and developing knowledge related to nursing interventions.  Prereq:  Grad st or cons inst  
Typically Offered:  Occasionally

NURSING  761 Health Program Planning, Evaluation, and Quality Improvement  Credits: 3  
Provides content in theory, concepts, and methods of program planning and evaluation in the context of health care and community health organizations. Provides basic concept related to designing and implementing health services quality improvement projects.  Prereq:  Grad st or cons inst  
Typically Offered:  Occasionally
NURSING  764 Nursing and Health Informatics Credits: 3
Application of computer and information technologies to support nursing in the diagnosis and treatment of human responses to health, illness, and developmental challenges. Identification of information processing challenges and evaluation of informatics solutions. Ethical, legal and social issues related to informatics in patient care. Prereq: Grad st or cons inst
Typically Offered: Summer

NURSING  768 Consumer Health Advocacy and Patient-Centered Care Clinical Credits: 1 - 7
Interdisciplinary health advocacy clinical supervised by diverse professional staff. Provide broad advocacy to patients with life-threatening and serious chronic illnesses. Advocacy topics include: medical decision-making, insurance, medical debt, disability issues. Weekly discussions of patient cases and related guest lectures. Prereq: Graduate or Professional standing or acceptance in Capstone Certificate in Consumer Health Advocacy
Typically Offered: Fall, Spring, Summer

NURSING  769 Consumer Issues in Health Care Credits: 1 - 3
Explores consumer issues in health care delivery in interdisciplinary discussion-based format. Covers current delivery system, expenditures/finance, managed care/insurance, barriers to access, reform, and other select topics. Ideal for future healthcare providers and others interested in patients’ experiences. Prereq: Grad st
Typically Offered: Fall, Spring, Summer

NURSING  772 Leadership and Organizational Decision-Making in Health Care Credits: 3
Provides advanced practice nurses with competencies (attitudes, knowledge and skills) to improve patient, organizational, and health systems performance outcomes. Effective organizational and systems leadership will help to eliminate health disparities, promote patient safety and excellence in practice. Prereq: Grad st in nursing or cons inst
Typically Offered: Fall

NURSING  785 Foundations of Curriculum Development and Evaluation in Nursing Education Credits: 3
Examination and application of knowledge and skills related to curriculum planning, implementation, and evaluation for nursing education. Emphasis on history and philosophy of nursing curricula, models of curriculum and evaluation, and strategies for change and innovation. Prereq: Grad st in nursing, grad research crse or cons inst
Typically Offered: Occasionally

NURSING  786 Foundations of Teaching and Learning in Nursing Credits: 3
The focus of this course is the planning, implementing, and evaluation of teaching and learning strategies for nursing education within diverse settings and student populations. Prereq: Nursing 785
Typically Offered: Spring

NURSING  787 Nursing Education Practicum Credits: 1 - 3
Application of knowledge and skills in the nurse educator role in selected educational environments (classroom, clinical, laboratory and/or communities). Seminar component included for discussion of instructional experiences and issues. Prereq: Nursing 785 and 786 or cons inst
Typically Offered: Fall, Spring

NURSING  788 Special Topics in Education in Nursing Credits: 1 - 3
Examination of current topics and issues in nursing education. Prereq: Grad St in Nursing or cons inst
Typically Offered: Occasionally

NURSING  798 Master's Research Practicum Credits: 3
The goal of the research practicum is to promote the student's learning of the research process in nursing through direct experience. Students work closely with faculty to determine the nature, scope and design of the research experience. Prereq: Nursing 700 or 701
Typically Offered: Occasionally

NURSING  799 Independent Study Credits: 1 - 6
Prereq: Grad st & cons inst
Typically Offered: Occasionally
NURSING 802 Ethics and the Responsible Conduct of Research Credits: 1
Ethical issues in the design, conduct and reporting of research are examined in the context of the nature of the scientific endeavor, the structure of the research community, and professional and federal guidelines for supporting scientific integrity and controlling misconduct. Prereq: Grad st
Typically Offered: Occasionally

NURSING 803 Advanced Quantitative Design and Methods Credits: 3
One of two research courses in the PhD program in nursing, this course focuses on the conduct of research primarily from empirical, analytical traditions. In the course, students will: * Address the integration of research paradigms, questions, designs, and methods for such research * Compare details, characteristics, strengths and limitations of alternative research designs and methods * Discuss issues and standards for preparing research proposals for different purposes (e.g., institutional review boards for human subjects, NIH) to advance the nursing discipline Prereq: PhD student in nursing and course in graduate statistics or consent of instructor
Typically Offered: Occasionally

NURSING 804 Advanced Qualitative Design and Methods Credits: 3
One of two research courses in the graduate PhD program in nursing, this course focuses on how to conduct qualitative research. Content addressed the philosophical underpinnings of various interpretive qualitative methodologies to assist students in matching the best method to particular research questions. The class format also offers students opportunities to engage in research procedures associated with various qualitative traditions. Prereq: Nursing 803 or consent of instructor
Typically Offered: Occasionally

NURSING 805 Measurement in Health Research Credits: 3
Major issues in developing, testing, and using research instruments, including links between concepts, variables, and measures; theories of measurement and scaling, including reliability and validity testing; and using measures in research. Prereq: An intro crse in stats, Grad st or cons inst
Typically Offered: Occasionally

NURSING 806 Evaluation and Application of Evidence-Based Practice Credits: 3
This course evaluates collective evidence and applies it, as appropriate, as a basis for improving nursing practice, health care, and healthcare outcomes. Prereq: Grad st in nursing or cons inst
Typically Offered: Spring

NURSING 811 Advanced Pathophysiology Credits: 3
In-depth study of selected physiological and pathophysiological concepts with application to advanced clinical practice across the lifespan. Prereq: Grad st
Typically Offered: Occasionally

NURSING 815 Knowledge Development in Nursing Credits: 3
Examination of the history of the discipline of nursing, with emphasis on the evolution of debates regarding what is known and how it is known. Prereq: Grad st or cons inst
Typically Offered: Occasionally

NURSING 816 Proseminar in Nursing Research Credits: 1
This seminar focuses on professional development and socialization to the role of nurse scientist. Topics emphasize development of career paths leading to productive research, scholarly publication / presentation, master teaching, and academic leadership. Discussion includes current topics in nursing research, especially as illustrated by the planned and ongoing research of graduate students and faculty in nursing. Two semesters are required; one in the first year of doctoral study and one as the student is nearing completion of course work. Prereq: Graduate or professional standing
Typically Offered: Occasionally

NURSING 817 Research in Communities, Populations, and Systems Credits: 3
Examination of concepts and methods of research directed toward health improvement of communities, populations, and systems. The course will provide a foundation for future development of community, populations, and systems research including methods and design, economic analysis, and considering social determinants of health. Prereq: Nursing 815 or consent of instructor
Typically Offered: Occasionally
NURSING 818 Patient-centered Research Credits: 3
This course addresses conceptual and methodological perspectives in how patient-centered research and family-centered care research is conducted, from the development through the testing and implementation of interventions. Attention is given to various conceptualizations of patient-centeredness, to the behavioral and physiological origins of patient-centered interventions, family-centered care interventions, and to the trajectory of testing such interventions, from descriptive studies to experimental trials. Prereq: Nursing 815 & a grad level research methods course or consent of instructor
Typically Offered: Occasionally

NURSING 819 Clinical Field Practicum - Research in Health Care Settings Credits: 3
This course provides a field experience in preparation for conducting clinical research in the health care setting that corresponds to the student's chosen health problem, phenomenon, or population of interest. Students will engage as participants and observers in the care setting to deepen their knowledge of the selected health problem and to examine the application of theory and research in the care setting. Students will negotiate a field experience with a selected agency or institution and participate in biweekly seminars. Prereq: Graduate student standing. Completion of at least one graduate level theory course in the population or phenomenon of interest. Completion of at least one gr
Typically Offered: Fall

NURSING 826 Foundations for APN Clinical Practice III Credits: 3
Designed to continue to advance students' knowledge for clinical decision-making. Coordination of complex care across systems and settings will be emphasized. Content tailored to APN role and population focus. Prereq: N727, N729, concurrent enrollment in N828, or consent of instructor
Typically Offered: Fall

NURSING 828 Clinical Leadership III Credits: 1 - 4
The focus of the Doctorate of Nursing Practice supervised clinical practice course is to enhance clinical leadership skills within the role of an Advanced Practice Nurse. Students collaborate with a faculty course professor and clinical preceptor to meet individualized learning objectives. Prereq: Clinical II or equivalent
Typically Offered: Fall

NURSING 829 Clinical Leadership IV Credits: 1 - 4
The focus of this Doctor of Nursing Practice supervised clinical practice course is to continue to enhance clinical leadership skills within the role of an Advanced Practice Nurse. Students collaborate with a faculty course professor and clinical preceptor to meet individualized learning objectives. Prereq: Nursing 828
Typically Offered: Spring

NURSING 847 Health Policy Practicum Credits: 3
This course provides a public policy field experience that corresponds to the student's selected clinical problem, phenomenon, or population of interest. Students will examine how a policy or set of policies can influence what leaders perceive as a clinical problem and how a patient population experiences a particular problem or phenomenon. Students will negotiate a policy experience with a selected agency or institution and participate in biweekly seminars. Prereq: Graduate student standing. Completion of Nursing 703 or similar health policy course. Completion of at least one graduate level research course
Typically Offered: Spring

NURSING 880 Prevention Science Credits: 3
This course provides a theoretical, empirical and practical foundation for prevention science as it relates to the prevention of human social problems. Research and evaluation methods, program design strategies, best practices and policy as they relate to the field of prevention are also examined. Intended for 2nd year graduate students. Prereq: Graduate or professional standing
Typically Offered: Occasionally

NURSING 881 Capstone Seminar in Prevention Science Credits: 1
This course provides an opportunity for students to meet with prevention professionals and scholars from across campus and the community to explore current and emerging issues of prevention research and professional practice. Students must complete HDFS 880 before taking this course. Prereq: Consent of instructor
Typically Offered: Occasionally
NURSING 906 Scholarly Project Credits: 1 - 4
Independent scholarly project involves a systematic, evidence-based approach to enhance health-related outcomes. Project completed over two to three semesters. Prereq: Grad statistics crse, Nursing 706 and Nursing 806
Typically Offered: Fall, Spring, Summer

NURSING 990 Thesis Research Credits: 1 - 9
Prereq: Grad st & thesis comm approval
Typically Offered: Occasionally

NURSING 991 Seminar in Nursing Research Credits: 3
Prereq: Grad st and cons inst
Typically Offered: Occasionally

NURSING 999 Advanced Independent Study Credits: 1 - 9
Prereq: Grad st and cons inst
Typically Offered: Occasionally
PHARMACEUTICAL SCIENCES

PHM SCI 310 Drugs and Their Actions Credits: 2
Introduces students to the biological effects of drugs on human health. Emphasis on how drugs, especially those used in diseases of major human health significance, act in the body. Drugs that are abused also will be covered. This course is not intended for medical, nursing, pharmacy, and physician assistant students. Prereq: HS or coll chem & biol, or cons inst. Not open for cr to Nursing, Phys Asst. & School of Pharm stdts
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHM SCI 401 Survey of Pharmacology Credits: 3
Pharmacological and toxicological actions and therapeutic use of important drugs. Prereq: Physiol 335; Biochem 201 or 501 or BmolChem 314. Not open for credit to School of Pharm stdts
L&S Breadth: Biological Science  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PHM SCI 420 Introduction to Drug Action and Drug Delivery I Credits: 4
Applications of physical principles and modern methods of analysis to pharmaceutical systems. Prereq: DPM-1 or TOX-3 st; Chem 103-104 & 343, 344, 345, Math 221, & Physics 103-104
Typically Offered: Fall

PHM SCI 421 Introduction to Pharmacodynamics and Pharmacokinetics Credits: 4
A conceptual introduction to the way that drugs act and are processed in vivo, including receptor theory, ligand-macromolecule binding, biopharmaceutics, drug metabolism, pharmacokinetics, and pharmacodynamics. Prereq: PHM SCI 420, PHYSIOL 335, and declared in the Doctor of Pharmacy program
Typically Offered: Spring

PHM SCI 430 Biological Interactions with Materials Credits: 3
This course addresses the range of materials currently being utilized for various biomedical applications, the biological systems governing biomaterial applications, analytical techniques pertinent to biomaterial evaluation, and selected major medical applications in which biomaterials play an important role. Prereq: 1 yr of general biol or two semesters of zool, & 1 semester of organic chem, or cons inst
Typically Offered: Spring

PHM SCI 432 Pharmaceutical Biochemistry Credits: 4
Chemistry of metabolic processes and products of living matter with emphasis on pharmaceutical and medicinal aspects as well as recombinant DNA technology. Laboratory experience with the chemistry of metabolic processes, products of living matter and recombinant DNA. Prereq: DPH-1 or TOX-3 st
Typically Offered: Fall

PHM SCI 490 Selected Topics in Pharmaceutical Sciences Credits: 1 - 4
Prereq: Graded on a lettered basis; requires cons inst
Typically Offered: Fall, Spring

PHM SCI 491 Selected Topics in Pharmaceutical Sciences Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring

PHM SCI 492 Selected Topics in Pharmaceutical Sciences Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring

PHM SCI 493 Selected Topics in Pharmaceutical Sciences Credits: 1 - 4
Prereq: Cons inst
Typically Offered: Fall, Spring
PHM SCI 521 Pharmacology I Credits: 3
Pharmacological actions of important drugs, including drugs that affect the peripheral nervous system, the central nervous system, and the gastrointestinal tract. Prereq: DPH-2 or Tox-4 standing; Microbio 303, Physiol 335, Phm Sci 432, Path 404
Typically Offered: Fall

PHM SCI 522 Pharmacology II Credits: 3 - 4
Pharmacological actions of important drugs, including hematopoietic, thrombolytic, antihyperlipidemic, immunopharmacologic, anticancer, anti-inflammatory, diuretic, antihypertensive, antianginal, and anti-arrhythmic agents, and agents used to treat congestive heart failure. Prereq: Phm Sci 521
Typically Offered: Spring

PHM SCI 531 Medicinal Chemistry I Credits: 2
Chemistry of medicinal products, including cholinergic, adrenergic, dopaminergic and serotonergic agents, antidepressants, sedative/hypnotics, antianxiety drugs, opioid drugs acting at histamine receptors, and inhibitors of mediator release. Prereq: Phm Sci 432
Typically Offered: Fall

PHM SCI 532 Medicinal Chemistry II Credits: 2
Chemistry of medicinal products, including antihyperlipidemics, glucocorticoids, estrogens, progestins, nonsteroidal anti-inflammatories, antitumor agents, and enzyme inhibitors. Prereq: Phm Sci 531
Typically Offered: Spring

PHM SCI 540 Drug Delivery Systems Credits: 4
The application of physical, chemical and biological principles to the study of drug delivery using a variety of solid, solution and disperse systems as dosage forms. Rationale for therapeutic use, formulation and manufacture, and evaluation of stability and bioavailability. Prereq: Phm Sci 420, 421; con reg in Phm Sci 541
Typically Offered: Fall

PHM SCI 541 Drug Delivery Systems Laboratory I Credits: 3
Introductory laboratory course in compounding and dispensing of pharmaceutical dosage forms, including sterile products. Includes practice in interpretation of prescription orders, pharmaceutical calculations, compounding procedures, physical manipulation of drugs and dosage form components, and product packaging and labeling. Prereq: Phm Sci 420, 421; con reg in Phm Sci 540
Typically Offered: Fall

PHM SCI 542 Drug Delivery Systems Laboratory II Credits: 3
Advanced extemporaneous prescription compounding and preparation of sterile products, with emphasis on physico-chemical stability and compatibility of drugs and dosage forms. Also addresses principles of appraisal, comparison, and selection of appropriate commercial brand name and generic products. Prereq: Phm Sci 540, 541, Stat 541; concurrent registration in Phm Prac 570, S&A Phm 511
Typically Offered: Spring

PHM SCI 558 Laboratory Techniques in Pharmacology and Toxicology Credits: 2
Basic laboratory techniques employed in pharmacological and toxicological research. Prereq: Jr st in the B.S. Pharmacology & Toxicology program
Typically Offered: Fall

PHM SCI 623 Pharmacology III Credits: 3
Pharmacological actions and underlying basic and clinical science of antimicrobial and antiviral drugs. Pharmacology of hormones and other drugs affecting the endocrine system. Prereq: PHM SCI 522
Typically Offered: Fall

PHM SCI 625 Toxicology I Credits: 3
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body. Prereq: Biochem 501 & Physiol 335 or consent of instructor. Path 401 & Phmcol 401 or equiv recommended
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall
PHM SCI 626 Toxicology II Credits: 3
A course surveying the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented. Prereq: Env Tox 625 or consent of instructor
L&S Breadth: Biological Science  L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PHM SCI 679 Pharmacology and Toxicology Seminar Credits: 1
Senior student presentations of independent research or of published papers on a specific topic approved by the course coordinator. Faculty-led seminars on selected topics regarding responsible conduct of research. The course also provides a venue for career talks by Pharmacology-Toxicology alumni and guests working in a variety of professional settings - research, industry(pharmaceutical; biotech; contract research; consumer products; etc.), a variety of healthcare professions, and law. Prereq: Junior or Senior standing in the B.S. Pharmacology & Toxicology program
Typically Offered: Spring

PHM SCI 691 Senior Thesis Credits: 2
Typically Offered: Fall, Spring

PHM SCI 692 Senior Thesis Credits: 2
Typically Offered: Fall, Spring

PHM SCI 699 Advanced Independent Study Credits: 0 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHM SCI 760 Graduate Student Seminar in Drug Delivery Credits: 1
Graduate seminar course for students in Drug Delivery Core of the Division of Pharmaceutical Sciences; students present original laboratory research or review literature in the setting of their fellow graduate student colleagues and the drug delivery faculty. Prereq: Grad st in the Division of Pharmaceutical Sciences (Drug Delivery Core)
Typically Offered: Occasionally

PHM SCI 766 Molecular Recognition Credits: 2 - 3
Origin, nature, classification, and description of intermolecular forces. The hydrophobic effect. Molecular complexes, binding constants, and their measurements. General principles of self-assembly, molecular recognition, complex formation, host design. Supramolecular systems and their dynamics. Micelles, bilayers, vesicles, biological membranes. Prereq: Chem 561 or equiv physical chem or cons inst
Typically Offered: Occasionally

PHM SCI 768 Pharmacokinetics Credits: 3
Quantitative aspects of drug absorption, distribution, metabolism, and excretion. Philosophy and applications of pharmacokinetic modeling and its use in clinical practice. Prereq: Cons inst
Typically Offered: Occasionally

PHM SCI 773 Molecular Solids Credits: 2
Describes the structures, properties, formation, and transformation of molecular solids, with emphasis on pharmaceutical solids. In each area, relevant theory, experiments, and case studies are presented. Prereq: Two semesters of general undergraduate chemistry or consent of instructor
Typically Offered: Occasionally

PHM SCI 775 Polymeric Drug Delivery Credits: 2
Introduction to polymers used in drug delivery, specifically polymers used in the spatial and temporal control of drugs. Discussion of basic reactions for the synthesis of polymers, biodegradable polymers, water-soluble polymer-drug conjugates, polymer assembly and nanoscale devices, and stimuli-sensitive polymers. Prereq: An intro crse in polymers or organic chem or cons inst
Typically Offered: Occasionally

PHM SCI 780 Principles of Pharmaceutical Sciences Credits: 3
Introductory-level graduate course providing overview of the drug development process, involving drug discovery, drug action, and drug delivery. Exposes students to cutting-edge research and the chemistry, biology, physical chemistry, and engineering that underpin pharmaceutical sciences research. Prereq: Cons inst
Typically Offered: Occasionally
PHM SCI 786 Natural Product Synthesis, Biosynthesis and Drug Discovery Credits: 3
Synthesis and biosynthesis of natural products in drug discovery. Topics include: natural products in drug discovery; biosynthetic pathways and synthetic strategies for major natural product classes; and basic bioorganic chemistry and enzyme mechanisms in biosynthesis. Prereq: Chem 345 or equiv; Biochem 508 or equiv
Typically Offered: Occasionally

PHM SCI 801 Seminar on Development of Medical Devices and Drugs Credits: 1
This course will give an overview of three major sectors of medical product and technology development including pharmaceuticals, medical devices and combination products. Regulatory framework, disclosure and patenting, technical design and development strategy, academia-specific development challenges will be among the major lecture topics. Prereq: Graduate student or consent of instructor
Typically Offered: Fall

PHM SCI 890 Highlights at the Chemistry-Biology Interface I Credits: 1
Principles of key discoveries at the chemistry-biology interface. This course is required of all Chemistry-Biology Interface trainees. Prereq: Graduate standing; consent of program director
Typically Offered: Occasionally

PHM SCI 891 Highlights at the Chemistry-Biology Interface II Credits: 1
Principles of key discoveries at the chemistry-biology interface. This course is required of all Chemistry-Biology Interface trainees. Prereq: Grad standing; consent of program director
Typically Offered: Occasionally

PHM SCI 931 Pharmaceutical Sciences Seminar Credits: 1
Prereq: Grad st
Typically Offered: Occasionally

PHM SCI 932 Pharmaceutical Sciences Seminar Credits: 1
Continuation of 931. Prereq: Grad st
Typically Offered: Occasionally

PHM SCI 990 Research Credits: 1 - 12
Prereq: Grad st
Typically Offered: Occasionally

PHM SCI 999 Advanced Independent Study Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Fall, Spring

PHARMACY

PHARMACY 490 Selected Topics in Pharmacy Credits: 1 - 2
Various topics related to the Pharmacy profession. Prereq: None
Typically Offered: Fall, Spring

PHARMACY 608 Safety and Quality in the Medication Use System Credits: 3
Addresses the problems of medication errors and quality in health care, problem resolutions, methods of assessment, and intervention implementation and quality management. Prereq: DPH-3 st or consent of instructor
Typically Offered: Spring

PHARMACY 631 Pharmacist Services Management Credits: 2
Provides a foundation for students/practitioners to develop, implement, and manage pharmacist services in a variety of practice environments. Students will work to develop, implement, or improve new pharmacy service products in practice environments using a marketing approach. Prereq: DPH-3 st
Typically Offered: Spring

PHARMACY 635 Drug Interactions Credits: 1 - 2
This course will develop the student's ability to use physiological, pharmacological, physical-chemical, pharmacokinetic, and pharmacodynamic concepts to analyze and assess drug-drug interactions. Prereq: PH-3 or DPM-1 st, or consent of instructor
Typically Offered: Fall
PHARMACY  640 Substance Abuse and Chemical Dependence  Credits: 2
This course addresses the pharmacology and toxicology of abused and dependence-producing substances, as well as treatment approaches for alcoholism, nicotine dependence, opioid dependence, and cocaine dependence. Prereq: Phm Sci 401 or 471, 472, 473, 474 or equiv, or consent of instructor
Typically Offered: Spring

PHARMACY  645 Pharmaceutical Biotechnology and Pharmacogenomics  Credits: 2 - 3
Facilitates the understanding and application of the principles of pharmaceutical biotechnology and pharmacogenomics. The third, optional, elective credit, open only to Pharm.D. students, will consist of clinical case studies in biotechnology and pharmacogenomics, to apply theory to clinical pharmacy practice. Prereq: Phm Sci 432 & DPH-3 st, or consent of instructor; 2 cr required, with 3rd cr open only to Pharm.D. stdts as a prof elective
Typically Offered: Fall

PHARMACY  800 Research Ethics: Scientific Integrity and the Responsible Conduct of Research  Credits: 2
Familiarizes graduate students with basic ethical issues associated with biomedical science research, taught via a case study approach. Content structured to meet NIH and NSF requirements for Responsible Conduct of Research (RCR) training. Prereq: Grad stdt in the Pharmaceutical Sciences PhD, Social and Administrative Sciences in Pharmacy (SAS) PhD, or in the MS-Pharmacy program. Grad stdts in an ICTR graduate program or Pharmacology-Toxicology undergrads may enroll via consent of instructor
Typically Offered: Fall

PHARMACY PRACTICE

PHM PRAC  305 Consumer Self-Care and Over-the-Counter Drugs  Credits: 2
Provides learners with information regarding self-care of common, minor health conditions. Emphasis on: illness prevention, health condition symptoms, guidelines for over-the-counter product use, adverse effects and alcohol/drug interactions of over-the-counter products, when to request professional care. Prereq: High school or college chemistry & biology, or consent of instructor. Not open for credit to Nursing, Phys Asst, & Doctor of Pharmacy students
Typically Offered: Fall

PHM PRAC  425 Pharmacy Practice Experience I  Credits: 1
This required PharmD experiential course complements didactic coursework in communication, practice-based skills, and the pharmacist's role in the health care system. Students will participate in various community-based experiences, including group collaboration with a senior partner, observing pharmacists' roles in practice settings, and providing screenings and education outreach. Prereq: DPM-1 st; con reg in S&A Phm 411
Typically Offered: Fall

PHM PRAC  426 Pharmacy Practice Experience II  Credits: 1
This required PharmD experiential course complements didactic coursework in communication, practice-based skills, and the pharmacist's role in the health care system. Students will participate in various community-based experiences, including group collaboration with a senior partner, observing pharmacists' roles in practice settings, and providing screenings and education outreach. Prereq: DPM-1 st, Phm Prac 425, S&A Phm 411; con reg in S&A Phm 414
Typically Offered: Spring

PHM PRAC  440 Therapeutics-Physician Assistants and Adv Practice Nurses, Part I  Credits: 1
The course will emphasize therapeutic and drug product selection, including issues of efficacy, potential toxicities, compliance, monitoring parameters, drug interactions, and cost. The focus of the course will be on chronic disease management, treatment of acute minor illnesses, and symptomatic therapies. Prereq: Jr st in Phy Asst prog; Grad st in School of Nursing, or cons inst. No cr for School of Pharmacy stdts
Typically Offered: Fall

PHM PRAC  441 Therapeutics-Physician Assistants and Adv Practice Nurses, Part II  Credits: 1
Continuation of Pharmacy Practice 440. Prereq: Phm Prac 440; Jr st in Phy Asst prog, Grad st in School of Nursing, or cons inst; no cr for School of Pharmacy stdts
Typically Offered: Spring
PHM PRAC 470 Computer Applications in Pharmacy Practice Credits: 2
Develops skills applicable to community and hospital pharmacy practice settings. Emphasis on database and computer applications unique to pharmacy practice. No prior computer experience or knowledge is necessary. Prereq: Enrollment in School of Pharmacy
Typically Offered: Fall

PHM PRAC 490 Selected Topics in Pharmacy Practice Credits: 1 - 4
Prereq: PH-2 st & cons inst
Typically Offered: Fall, Spring

PHM PRAC 525 Introduction to Pharmacy Practice Experience III Credits: 1
The third of six in a three-year sequence which will introduce and expose second-year Doctor of Pharmacy students to the various roles of pharmacists and the many patient-care opportunities that exist in and out of traditional pharmacy practice settings. Prereq: DPH-2 st, Phm Prac 426
Typically Offered: Fall

PHM PRAC 526 Introduction to Pharmacy Practice Experience IV Credits: 1
The fourth of six in a three-year sequence which will introduce and expose second-year Doctor of Pharmacy students to the various roles of pharmacists and the many patient-care opportunities that exist in and out of traditional pharmacy practice settings. Prereq: DPH-2 st, Phm Prac 525
Typically Offered: Spring

PHM PRAC 550 Fluid and Electrolyte Therapy Credits: 2
Clinical management of disorders of fluid, electrolytes, and acid-base in patients with normal and abnormal homeostatic mechanisms. Also included is parenteral nutritional support. Prereq: PH-3 or DPM-1 st, or cons inst
Typically Offered: Fall

PHM PRAC 553 Integrated Pharmacotherapy Skills I Credits: 1
Learn pharmacotherapeutic skills necessary to develop competence as a pharmacist to assume the responsibility to improve therapeutic patient outcomes related to medication use. Skills will include patient communication, identification and resolution of drug related problems, and documentation. Prereq: DPH-2 or higher standing or consent of instructor
Typically Offered: Fall

PHM PRAC 554 Integrated Pharmacotherapy Skills II Credits: 1
Learn pharmacotherapeutic skills necessary to develop competence as a pharmacist to assume the responsibility to improve therapeutic patient outcomes related to medication use. Skills will include patient and provider communication, identification and resolution of drug related problems, and documentation. Prereq: 2nd year Doctor of Pharmacy student (DPH-2) or higher
Typically Offered: Spring

PHM PRAC 555 Pharmacotherapy I Credits: 3
Clinical application of medications in the management of various disease states. Assessment and therapeutic monitoring of drug therapy with emphasis on the concepts of pharmacokinetics/dynamics, drug interactions, pharmacy practice, and patient counseling. Topics include medical nomenclature, basic clinical laboratory values, clinical pharmacokinetics, and neuropsychiatric therapeutics. Prereq: DPH-2 st or consent of instructor
Typically Offered: Fall

PHM PRAC 556 Pharmacotherapy II Credits: 3
Clinical application of medications in the management of various disease states. Assessment and therapeutic monitoring of disease states and drug therapy using the concepts of pharmacokinetics/dynamics, drug interactions, pharmacy practice and patient counseling. Topics include cardiovascular and pulmonary therapeutics. Prereq: Phm Sci 521, Phm Prac 555, & DPH-2 st, or cons inst
Typically Offered: Spring

PHM PRAC 559 Introduction to Antimicrobial Pharmacotherapy Credits: 1
Prepares pharmacy students for antimicrobial exposure and monitoring during internships to ensure safe and effective patient use of antimicrobials. Prereq: Declared in Doctor of Pharmacy program and 2nd year standing
Typically Offered: Spring
PHM PRAC  570 Drug Literature Evaluation  Credits: 3  
Fundamentals of drug literature and statistical evaluation to enable students to make decisions regarding the clinical use of drugs in their practice.  Prereq:  DPH-2 standing or consent of instructor  
Typically Offered:  Spring

PHM PRAC  605 Pharmacotherapeutics for Advanced Practice Nurses  Credits: 3  
Pharmacotherapeutics content and application for advanced practice nursing. Emphasis on selection of appropriate therapeutics, development of clinical decision-making skills, and examination of legal, ethical, and safety issues in prescribing medications.  Prereq:  An undergrad pharmacology crse  
Typically Offered:  Summer

PHM PRAC  611 Medical Imaging for Pharmacists  Credits: 2  
General Imaging is offered as an overview of the imaging modalities offered in a Hospital Radiology Department. Completion of this course will help students understand the concepts of radiation, how it is used, and some of the tests and medications a patient may encounter when in the Radiology Department of a hospital.  Prereq:  DPH-2 Standing  
Typically Offered:  Fall

PHM PRAC  612 Radiopharmaceuticals  Credits: 2  
A survey of the clinical diagnostic and therapeutic use of radioactive pharmaceuticals. Included is a review of nuclear physics, radiation biology, radiation chemistry, regulatory issues, and radiation safety, as these areas relate to the synthesis, formulation, dispensing, and administration of radiopharmaceuticals.  Prereq:  PHM PRAC 611  
Typically Offered:  Fall

PHM PRAC  617 Health System Pharmacy Data Analysis and Informatics  Credits: 2  
Weekly lectures will familiarize the student with pharmacy information systems and the use of data and data processing systems for decision support. Students will complete a data analysis and report project to drive a decision in the hospital.  Prereq:  Grad st or DPH-3 and cons inst  
Typically Offered:  Fall

PHM PRAC  625 Introductory Pharmacy Practice Experience V  Credits: 0  
Experiences provided by this course permit students to integrate learning from previous didactic courses (drug literature review, pharmacotherapy, and patient/provider communications) into caring for patients. Students actively participate in patient care activities while under the supervision of a clinical instructor.  Prereq:  DPH-3 St; Phm Prac 526 or cons inst  
Typically Offered:  Fall

PHM PRAC  626 Introductory Pharmacy Practice Experience VI  Credits: 2  
Experiences provided by this course permit students to integrate learning from previous didactic courses (drug literature review, pharmacotherapy, and patient/provider communications) into caring for patients. Students actively participate in patient care activities while under the supervision of a clinical instructor.  Prereq:  DPH-3 St; Phm Prac 625 or cons inst  
Typically Offered:  Spring

PHM PRAC  638 Nonprescription Products & Self-Care  Credits: 2  
The course provides students with knowledge and skills needed to perform triage and make self-care and therapeutic recommendations for self-limiting health conditions commonly encountered in pharmacy practice.  Prereq:  Phm Prac 555-556 & Phm Sci 521-522  
Typically Offered:  Fall

PHM PRAC  650 Comprehensive Immunization Delivery  Credits: 1  
Addresses vaccine-preventable diseases and the implementation of pharmacy-based immunization delivery programs.  Prereq:  DPH2 standing  
L&S Level:  Advanced  Typically Offered:  Spring

PHM PRAC  653 Integrated Pharmacotherapy Skills III  Credits: 1  
Learn and build upon pharmacotherapeutic skills necessary to develop competence as a pharmacist to assume the responsibility to improve therapeutic patient outcomes related to medication use. Skills will include patient and healthcare provider communication, identification and resolution of drug related problems, documentation, and complex problem solving skills.  Prereq:  DPH-3 standing, or consent of instructor  
Typically Offered:  Fall
PHM PRAC 654 Integrated Pharmacotherapy Skills IV Credits: 1
Learn and build upon pharmacotherapeutic skills necessary to develop competence as a pharmacist to assume the responsibility to improve therapeutic patient outcomes related to medication use. The course will focus on building complex problem solving skills including the integration of patient and provider communication, documentation, and evaluation of integrated patient cases with a secondary focus on patient profile reviews and comprehensive medication review and assessment. Prereq: Third year Doctor of Pharmacy student (DPH-3) or higher, or consent of instructor
Typically Offered: Spring

PHM PRAC 655 Pharmacotherapy III Credits: 3
Clinical application of medications in the management of various disease states. Assessment and therapeutic monitoring of disease states and drug therapy using the concepts of pharmacokinetics/dynamics, drug interactions, pharmacy practice and patient counseling. Topics include various renal, endocrine, gastrointestinal, rheumatologic and immunologic disease therapeutics. Prereq: DPM-3 st, or consent of instructor
Typically Offered: Fall

PHM PRAC 656 Pharmacotherapy IV Credits: 3 - 4
Clinical application of medications in the management of various disease states. Assessment and therapeutic monitoring of disease states and drug therapy using the concepts of pharmacokinetics/dynamics, drug interactions, pharmacy practice and patient counseling. Topics include various oncology and infectious disease therapeutics. A one credit elective option will be offered to students and involves academic leadership skill development. Student leaders will lead discussion activities which involve clinical cases, scientific literature review, oncology literature discussions. Prereq: DPH-3 st, or consent of instructor
Typically Offered: Spring

PHM PRAC 657 Seminars in Pediatric Pharmacotherapy Credits: 2
Addresses the selection, dosing, and monitoring of drugs in children from birth to adolescence. Drugs in pregnancy and lactation are also addressed. The course combines lecture, small group work, and discussion. Prereq: PHM PRAC 555, PHM PRAC 556, PHM PRAC 655, and prior or concurrent registration in PHM PRAC 656
Typically Offered: Spring

PHM PRAC 658 Medication Management in Ambulatory/Primary Care Credits: 2
Enhanced education and integration of knowledge & skills regarding pharmacotherapeutic management of ambulatory patients with common disease states, including the pharmacist's role in patient education. Prereq: PHM PRAC 655, PHM SCI 521, PHM SCI 522, PHM SCI 623 & consent of instructor
Typically Offered: Spring

PHM PRAC 670 Veterinary Therapeutics Credits: 1 - 2
Presentation and discussion of topics that involve the therapeutic management of disease states of companion, food, and exotic animals. Emphasis is placed upon the principles of drug regulations, drug therapy, toxicology, and available commercial products. Prereq: PH-3 st or cons inst
Typically Offered: Fall, Spring

PHM PRAC 671 Introduction to Academic Pharmacy I Credits: 2
Introduces students to pharmacy faculty responsibilities. Students will participate in a variety of activities to expose them to the role of the pharmacy educator and will actively participate in the education of DPH-1 or DPH-2 students. Prereq: Successful completion of the DPH-2 curriculum
Typically Offered: Fall

PHM PRAC 672 Herbals, Homeopathy, and Dietary Supplements Credits: 2 - 3
Covers regulations and clinical science regarding the use of herbals, homeopathic remedies, and dietary supplements, focusing on peer-reviewed studies and integration with allopathic drugs; includes discussion of marketing issues. Prereq: Phm Sci 432 or Biochem 501 or BmolChem 314; Physiol 335; or cons inst
Typically Offered: Spring

PHM PRAC 673 Seminars in Global Health Pharmacy Credits: 1
Explores the contribution of pharmacy and pharmacists to global health initiatives. Topics will be selected and presented by course faculty and students. Prereq: DPH-1, DPH-2; and DPH-3 or cons inst
Typically Offered: Spring
PHM PRAC 674 Seminars in Psychiatric Pharmacy Credits: 2
Addresses the pharmacotherapeutic management of various psychiatric conditions. A special emphasis will be placed on the role of the pharmacist in the care of patient's with mental health conditions. A combination of lecture, discussion, and small group work will be utilized. Prereq: Phm Prac 555
Typically Offered: Spring

PHM PRAC 676 Seminar in Geriatrics Credits: 2
Course content will include therapeutics topics pertaining to the pharmaceutical and medical care of the elderly. In addition, select topics on social aspects of aging will be presented. Prereq: Phm Pract 555 & 556
Typically Offered: Fall

PHM PRAC 677 Seminars in Cardiology Credits: 2
Seminars, primary literature review, and patient case discussions on selected cardiovascular conditions, including: ACS, HF, valvular disease, cardiac devices, hemodynamic monitoring, heart transplantation, arrhythmias, CPR/ACLS, pulmonary arterial hypertension, stroke, and metabolic syndrome. Prereq: Phm Prac 555 & 556
Typically Offered: Fall

PHM PRAC 678 Seminars in Long Term Care Credits: 3
Students will learn clinical and legal requirements relating to pharmacy consulting in a long term care (LTC) setting. Prereq: Phm Prac 555 & 556
Typically Offered: Fall

PHM PRAC 679 Advanced Diabetes Management Credits: 2
Enhanced education on diabetes topics; current approaches to the medical management of patients with diabetes including the pharmacist's role in diabetes education and coaching/case management. Prereq: PHM PRAC 655 and declared in Doctor of Pharmacy with year 3 standing
Typically Offered: Spring

PHM PRAC 691 Senior Thesis Credits: 2
Typically Offered: Fall, Spring

PHM PRAC 692 Senior Thesis Credits: 2
Typically Offered: Fall, Spring

PHM PRAC 699 Advanced Independent Study Credits: 0 - 3
Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

PHM PRAC 710 Geriatric Pharmacotherapy Credits: 2
Interdisciplinary approach to the health care of the elderly. Emphasis placed on the pharmacologic management of conditions common in the elderly and the medically complicated geriatric patient. Prereq: DPM-1 or PH-3 st or cons inst
Typically Offered: Spring

PHM PRAC 711 Oncology Biomarkers Credits: 2
This course is designed to develop an understanding of cancer related biomarkers and how they are used to effectively target individualized treatment to the patient. Prereq: Gen Chem 104 and Biology 151 or Biochem 507 or equivalent or consent of the instructor
Typically Offered: Fall

PHM PRAC 740 Acute Pharmaceutical Care Clerkship Credits: 4 - 8
This required Pharm.D. experiential course integrates prior didactic course work in pharmacotherapy, pathophysiology, and drug literature evaluation into the provision of pharmaceutical care to hospitalized patients. The student will participate in the provision of direct pharmaceutical care, by monitoring drug therapy, providing patient counseling, and providing drug information and pharmacokinetic dosing recommendations for patients. In addition, the student will gain experience and insight into health education by interacting with other health professional students. Prereq: DPM st, Phm Prac 626 & 656, or cons inst
Typically Offered: Fall, Spring, Summer
PHM PRAC 741 Ambulatory Pharmaceutical Care Clerkship Credits: 4 - 8
This required Pharm.D. experiential course integrates prior course work in pharmacotherapy, pathophysiology, and drug literature evaluation into the provision of pharmaceutical care to ambulatory patients. Students will conduct patient interviews and assessments, provide drug information to patients and health professionals, and monitor drug therapy in ambulatory settings. Prereq: DPM st and Phm Prac 626 &656, or cons inst
Typically Offered: Fall, Spring, Summer

PHM PRAC 746 Interdisciplinary Care of Children with Special Health Care Needs Credits: 3
Interdisciplinary team care of children with special health care needs across the trajectory of illness presented within the context of family, culture, social determinants of health, community, and healthcare policy. Students introduced to interdisciplinary, collaborative, family-centered team care. Prereq: Grad st and/or cons inst
Typically Offered: Occasionally

PHM PRAC 760 Pharmaceutical Care Specialty Clerkship Credits: 1 - 8
This required Pharm.D. experiential course integrates prior didactic course work in pharmacotherapy, pathophysiology, and drug literature evaluation into the provision of pharmaceutical care to hospitalized patients and ambulatory patients. The student will participate in the provision of direct pharmaceutical care, by monitoring drug therapy, providing patient counseling, and providing drug information and pharmacokinetic dosing recommendations for patients. Prereq: DPM st, Phm Prac 626 & 656, or cons inst
Typically Offered: Fall, Spring, Summer

PHM PRAC 764 Veterinary Pharmacy Clerkship Credits: 2 - 8
Practical experience in a veterinary medicine environment with emphasis on the drug treatment of diseases in animals. Prereq: PH-3 st
Typically Offered: Fall, Spring, Summer

PHM PRAC 769 Clinical Research and Pharmacy Investigation Credits: 7 - 8
This experiential learning course offers students the opportunity to gain experience with clinical and translational research in a mentored situation. Students will learn study design, laboratory techniques, statistical analysis, manuscript preparation, and ethical principles of research. Prereq: DPH4 standing
Typically Offered: Fall, Spring, Summer

PHM PRAC 961 Graduate Seminar in Health-System Pharmacy Credits: 1
Prereq: Graduate standing
Typically Offered: Fall

PHM PRAC 962 Graduate Seminar in Health-System Pharmacy Credits: 1
Prereq: Graduate standing
Typically Offered: Spring

PHM PRAC 999 Advanced Independent Study Credits: 1 - 12
Prereq: DPM-1 st & cons inst
Typically Offered: Fall, Spring, Summer

SOCIAL & ADMINISTRATIVE PHARM

S&A PHM 105 Health Care Systems: Interdisciplinary Approach Credits: 2
Introduction to health care systems. Factors affecting health and the value placed on health, the delivery of health care in different settings, the roles of various health workers, and the sociological and economic aspects of health care. Prereq: Open to all undergrads
L&S Breadth: Social Science  L&S Level: Elementary  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring

S&A PHM 401 History of Pharmacy Credits: 2
Pharmaceutical field, from antiquity to modern medical care; professional; structuring in principal countries of the West. Prereq: Jr st or cons inst
L&S Breadth: Humanities  L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring
S&A PHM 411 The Role of the Pharmacist in the Public Health System  Credits: 3  
This course introduces students to: (1) the public health care system and pharmacists’ roles in the public health care system, (2) the health care system and how pharmacy fits within the health care system, (3) the patient’s perspective of health, illness, medication taking and patient-pharmacist interaction, (4) principles of educational assessment and patient consultation, (5) skills and strategies to overcome barriers to individualized patient consultation. Prereq: Soc 210 or 211, or Anthro 100 or 104, & Psych 202 or 530  
Typically Offered: Fall

S&A PHM 414 Managing Pharmacy Systems for Patient Care  Credits: 3  
The goals of this course are to introduce concepts and principles related to managing pharmacy operations and systems for patient care, operational economics in pharmacies, pharmacoconomics and outcomes, and aspects of marketing in pharmacy and patient care. Prereq: DPH-1 st, S&A Phm 411  
Typically Offered: Spring

S&A PHM 490 Selected Topics in Social and Administrative Pharmacy  Credits: 1 - 4  
Prereq: Graded on a lettered basis; requires cons inst  
Typically Offered: Fall, Spring

S&A PHM 511 Pharmacy Law and Regulation  Credits: 2 - 3  
Federal and Wisconsin laws related to drug manufacture, drug distribution, drug use, and pharmacy practice.  
Prereq: DPM-2 st; S&A Phm 411, 414, 510  
Typically Offered: Spring

S&A PHM 561 Greek and Roman Medicine and Pharmacy  Credits: 3  
Greek and Roman medicine and drug lore from the Pre-Socratics to Oribasius (c. 600 B.C. - A.D. 350), including the backgrounds of ancient Egyptian and Mesopotamian medicine. Prereq: Jr or Sr st, or cons inst  
L&S Breadth: Humanities  
L&S Level: Intermediate/Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall

S&A PHM 562 Byzantine Medicine and Pharmacy  Credits: 3  
Byzantine and Islamic medicine and drug lore from Oribasius to the beginnings of the Italian Renaissance (c. 350 - c. 1400 A.D.). Prereq: Jr or Sr st or cons inst  
L&S Breadth: Humanities  
L&S Level: Intermediate/Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Spring

S&A PHM 618 Professional Decision-Making in Pharmacy Practice  Credits: 2 - 3  
Application of ethical theory to problems in pharmacy practice. Emphasis on contemporary patient care situations and evolving issues related to drug technology, drug use, and patient-pharmacist relations. Prereq: DPH-3 st, S&A Phm 511, & Phm Prac 556; 2 cr required, 3rd cr avail as a professional elective  
Typically Offered: Fall

S&A PHM 622 Proseminar in Social and Administrative Pharmacy  Credits: 1 - 3  
Problems in pharmaceutical sociology, psychology, management, finance and economics, including: drug prescribing/use, distribution, and payment; patient care and pharmaceutical service delivery; pharmaceutical industry; and pharmaceutical policy and regulation. May be repeated. Prereq: DPH-1 or Junior standing  
Typically Offered: Occasionally

S&A PHM 652 Pharmacist Communication: Educational and Behavioral Interventions  Credits: 2  
Intermediate principles of pharmacist communication with patients and other care givers; weekly communications laboratory provides opportunity to refine skills in listening, interviewing, counseling, and use of various educational and behavioral strategies to improve drug use. Prereq: DPM-3 st & S&A Phm 411  
Typically Offered: Spring

S&A PHM 699 Advanced Independent Study  Credits: 0 - 3  
Prereq: Cons inst  
L&S Level: Advanced  
L&S Credit: Counts for LAS credit  
Typically Offered: Fall, Spring

S&A PHM 711 Research Methods for Pharmaceutical Outcomes and Policy Research  Credits: 3  
Development of skills in the methods, techniques, and problems encountered in conducting evaluations of pharmaceutical services, programs, and policies. Prereq: Two statistics courses including regression analysis and one research methods course or graduate student or consent of the instructor  
Typically Offered: Occasionally
S&A PHM 713 Pharmaceutical Marketing and Policy Credits: 3
Marketing and policy aspects of prescription drugs from the perspective of the pharmaceutical industry; overview of the industry, the marketing mix, policies and regulations related to pharmaceuticals. Prereq: Grad st or cons inst
Typically Offered: Occasionally

S&A PHM 714 Social Organization of Pharmacy Credits: 3
Examination of theories, methodologies, and research related to social organization of the profession and practice of pharmacy, the pharmaceutical industry, pharmaceutical regulation, and national/international pharmacy sectors. Prereq: Grad st or cons inst
Typically Offered: Occasionally

S&A PHM 715 Social Behavioral Theories in Pharmacy, Drug Use, and Health Behavior Credits: 3
Critical review and application of social behavioral theories, methodologies, and research to current problems in pharmacy, pharmacist communication and interaction with consumers and other providers, use of prescription and nonprescription drugs, and self-care. Prereq: Grad st or cons inst
Typically Offered: Occasionally

S&A PHM 716 Advanced Hospital Pharmacy Administration Credits: 2
For second-year hospital pharmacy students. Various components necessary to become an accomplished administrator of a pharmacy department in a hospital or organized health care setting. Prereq: S&A Phm 616, minimum of one yr in MS-Residency Program, or cons inst
Typically Offered: Occasionally

S&A PHM 911 Research Seminar in Social & Administrative Pharmacy Credits: 1
The objectives of the course are to expose students to research related to SAS topics, discuss strategies for writing research theses and articles, discuss various methodological approaches to answering research questions, and improve oral and written communication skills. Seminars may involve presenting completed and/or planned research, leading discussions among seminar participants about research topics, and discussing written assignments. Prereq: Graduate standing or consent of the instructor
Typically Offered: Fall, Spring

S&A PHM 990 Research Credits: 1 - 12
Prereq: Grad st
Typically Offered: Fall, Spring, Summer

S&A PHM 999 Advanced Independent Study Credits: 1 - 12
Prereq: Grad st & cons inst
Typically Offered: Fall, Spring, Summer
SCHOOL OF VETERINARY MEDICINE

COMPARATIVE BIOSCIENCES

COMP BIO  500 Fundamental Principles of Veterinary Anatomy Credits: 5
A detailed consideration of gross anatomical structure with emphasis on major anatomical patterns present in
species important to veterinary medicine. The dog is used as a model domestic mammal and comparisons with
other species are considered. All body systems are dissected. Clinical implications of these dissections are
emphasized. Prereq: Vet Med st or cons inst
Typically Offered: Fall

COMP BIO  501 Veterinary Histology Credits: 5
Comparative structural and functional aspects of cells and tissues will be examined. Mammalian histology will be
stressed. Prereq: Vet Med st or cons inst
Typically Offered: Fall

COMP BIO  502 Molecular and Metabolic Basis of Medicine Credits: 3
This course covers metabolism with a more advanced incorporation of concepts of chemistry, cell biology and
physiology. Clinical correlations in veterinary medicine are also covered. Prereq: Vet Med st and Biochem 501
or equiv, or cons inst
Typically Offered: Fall

COMP BIO  503 Veterinary Developmental Anatomy Credits: 2
Principles of development and organogeneses in domestic animals. Normal developmental patterns are related to
adult anatomy. Clinical implications of common congenital defects are discussed. Prereq: Vet Med st or cons
inst
Typically Offered: Fall

COMP BIO  505 Veterinary Neuroanatomy and Neurophysiology Credits: 3
A comparative approach to the morphological and physiological properties of the central nervous system of
animals, particularly those of veterinary importance. Prereq: Vet Med st or cons inst
Typically Offered: Spring

COMP BIO  506 Veterinary Physiology B Credits: 4
The second semester of a two semester comprehensive course in comparative veterinary physiology covering
digestive, endocrine, and reproductive systems. Prereq: Vet Med st or cons inst
Typically Offered: Spring

COMP BIO  550 Anatomy of the Large Domestic Animals Credits: 1 - 3
A dissection study of the horse and the ox with special emphasis on the anatomical specializations of these
species. Extensive comparisons to the anatomy of the small domestic animals. Other large domestic animals
will be considered as appropriate to demonstrate anatomical variation. Prereq: Vet Med st or cons inst
Typically Offered: Fall

COMP BIO  551 Veterinary Physiology A Credits: 4
The first semester of a two semester comprehensive course in comparative veterinary physiology covering
electrophysiology, and muscle, cardiovascular, respiratory, renal and acid-base physiology. Prereq: Vet Med st
or cons inst
Typically Offered: Fall

COMP BIO  555 Veterinary Toxicology Credits: 2
Science of toxicology as it relates to veterinary practice. The principles of toxicology and the mechanism and
treatment of toxicants commonly encountered in small and large animals will be presented. Prereq: Vet Med st
or cons inst
Typically Offered: Spring
COMP BIO  556 Veterinary Pharmacology  Credits: 4
Basic pharmacology of various drug classes used in veterinary medicine together with examples of clinical drug use. Important species variations in drug use and drug response will be stressed. Prereq:  Comp Bio 552 or cons inst
Typically Offered: Spring

COMP BIO  675 Special Topics  Credits: 1 - 5
Topics vary. Prereq:  Cons inst
Typically Offered: Fall, Spring, Summer

COMP BIO  699 Directed Study  Credits: 1 - 5
Projects in the laboratory and/or through library work in specific subject area under the direct guidance of faculty member. Prereq:  Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

COMP BIO  775 Externship  Credits: 1 - 24
This course is an elective for fourth year veterinary medical students which offers faculty coordinated experience in the veterinary medical profession outside the School. Prereq:  Vet Med st or cons inst
Typically Offered: Occasionally

COMP BIO  990 Research  Credits: 1 - 12
Research. Prereq:  Graduate standing and consent of instructor
Typically Offered: Fall, Spring, Summer

MEDICAL SCIENCES - VET MED

MED SC-V  570 Animal Health History Restraint and Physical Examination  Credits: 1
Introduces use of the problem oriented medical record concepts, history taking, physical examination and basic restraint, and diagnostic and therapeutic techniques in large and small domestic animals. Prereq:  Vet Med st or cons inst
Typically Offered: Spring

MED SC-V  576 Small Animal Emergency and Critical Care I  Credits: 1
This course is designed to introduce students in the first and second year of veterinary medical school to various topics of emergency and critical care medicine. Prereq:  Good academic standing as a 1st or 2nd year Vet Med program stdt
Typically Offered: Spring

MED SC-V  577 Small Animal Emergency and Critical Care II  Credits: 1
This course is available to third year veterinary medical students. It will cover various topics in emergency and critical care medicine. Through lectures and case discussions, an introduction to several areas of emergency and critical care medicine will be presented. Prereq:  3rd yr veterinary medical stdt st; prior successful completion of MED SC-V 576
Typically Offered: Fall

MED SC-V  625 Veterinary Diagnostic and Therapeutic Techniques  Credits: 0 - 1
This course will complete the formal laboratory instruction of DVM students in detailed examination techniques and diagnostic and therapeutic procedures relevant to veterinary procedures on all species of domestic animals. Prereq:  Vet Med st or cons inst
Typically Offered: Fall, Spring

MED SC-V  629 Veterinary Nutrition  Credits: 1
Presents awareness of the importance of nutrition in the veterinary practice. Prereq:  1st yr Vet Med st
Typically Offered: Fall, Spring, Summer

MED SC-V  632 Companion Animal and Equine Medicine I  Credits: 6
Basic concepts of well-animal companion animal and equine health care, nutrition, and reproduction will be presented. Discussion of the etiology, pathophysiology, diagnosis, treatment, and prevention of important internal medicine and reproductive diseases in these species will be emphasized. Prereq:  Vet Med 3 st
Typically Offered: Occasionally
MED SC-V 633 Companion Animal and Equine Medicine II Credits: 6
Basic concepts of well-animal companion animal and equine health care, nutrition, and reproduction will be presented. Discussion of the etiology, pathophysiology, diagnosis, treatment, and prevention of important internal medicine and reproductive diseases in these species will be emphasized. Prereq: Vet Med 3 st
Typically Offered: Occasionally

MED SC-V 634 Food Animal Medicine Credits: 5
Introduce students to basic principles for food animal species. To integrate food animal medicine, theriogenology, nutrition and preventive medicine concepts into one course. Prereq: 3rd yr Vet Med st
Typically Offered: Occasionally

MED SC-V 635 Swine Medicine Credits: 1
This course is intended for third year veterinary medical students. It will focus on basic swine medicine clinical skills including diagnosis and treatment of common swine diseases that present in individual pigs and populations. Influences of production practices and farm structure will be introduced as they impact the successful practice of swine medicine. Additionally, regulatory influences unique to swine veterinary medicine and principles of biosecurity/biocontainment and bioexclusion will be discussed. Prereq: Veterinary Medical student
Typically Offered: Spring

MED SC-V 667 Small Animal Neurology Credits: 2
Provide instruction and guidance in obtaining a complete neurological history, interpreting examinations, diagnostic tests and rationally selecting an appropriate diagnosis and effective management for neurology cases. Prereq: 4th yr Vet Med st
Typically Offered: Fall, Spring, Summer

MED SC-V 668 Clinical Dermatology Rotation Credits: 2
Develop the technical, clinical and knowledge skills to effectively examine, diagnose and manage the dermatology patient. Prereq: 4th yr Vet Med st
Typically Offered: Fall, Spring, Summer

MED SC-V 669 Small Animal Cardiology Rotation Credits: 2
Diagnostic techniques and therapy available for the management of cardiology patients. Prereq: 4th yr Vet Med st
Typically Offered: Fall, Spring, Summer

MED SC-V 670 Senior Rotation in Large Animal Medicine Service Credits: 2
A practical course in diagnosis and medical treatment of diseases of horses, cattle, sheep, goats and pigs. Senior students under supervision will examine, admit and discharge cases in the Veterinary Medical Teaching Hospital. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring, Summer

MED SC-V 672 Senior Rotation in Theriogenology Service Credits: 2
A practical course on the management of reproduction and reproductive problems in domestic animals including pets. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring, Summer

MED SC-V 674 Senior Rotation in Ambulatory Service Credits: 2
A practical course in the diagnosis, treatment, and recommendation of preventive measures for common medical, surgical and management problems on farms. Senior students will examine the environmental influences associated with such problems. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring, Summer

MED SC-V 675 Special Topics Credits: 1 - 5
Topics vary. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

MED SC-V 678 Small Animal Internal Medicine Credits: 2
To enable student to develop the ability to analyze, organize and integrate information effectively to make clinical decisions relating to the diagnosis, prognosis, management and control of diseases. Prereq: 4th yr Vet Med st
Typically Offered: Fall, Spring, Summer
MED SC-V 679 Small Animal Oncology Credits: 2
To develop skills in clinical medicine, palpation, interpretation of laboratory data and become acquainted with oncology clientele. Prereq: 4th yr Vet Med st
Typically Offered: Fall, Spring, Summer

MED SC-V 699 Directed Study Credits: 1 - 5
Projects in the laboratory and/or through library work in specific subject areas under the direct guidance of a faculty member. Prereq: Cons inst
L&S Level: Advanced L&S Credit: Counts for LAS credit Typically Offered: Fall, Spring, Summer

MED SC-V 701 Production Medicine I Credits: 2
Students visit dairy farms, learn to identify production limiting problems, and develop a priority list based upon economic importance. The farm investigation consists of visual evaluations of farmstead and herd, interpretation of DHI records, and computer analysis of herd records. Prereq: Vet Med st or cons inst
Typically Offered: Occasionally

MED SC-V 703 Production Medicine II Credits: 2
An elective rotation for students interested in dairy practice and udder health in particular. Students will investigate and analyse farm and laboratory data and evaluate recommendations using benefit/cost analyses. Students will perform milking system, milking procedure, and environmental management evaluations. Prereq: Vet Med st or cons inst
Typically Offered: Occasionally

MED SC-V 705 Production Medicine III-Applied Dairy Nutrition Credits: 2
A clinical elective rotation for students interested in applying principles of nutrition to dairy practice. The rotation will include lectures, computer exercises, and farm visits. Prereq: Med Sc-V 701, 703, 705
Typically Offered: Occasionally

MED SC-V 707 Production Medicine IV Credits: 2
Assess and use dairy farm records using Dairy Comp 305 software; devise partial budgets and calculate the cost of producing milk on dairy farms. Prereq: Med Sc-V 701, 703, 705
Typically Offered: Occasionally

MED SC-V 708 Equine Theriogenology Credits: 2
Develop clinical skills for entry-level practice of equine reproduction. Prereq: 4th yr Vet Med st
Typically Offered: Occasionally

MED SC-V 775 Externship Credits: 1 - 24
This course is an elective for fourth year veterinary medical students which offers faculty coordinated experience in the veterinary medical profession outside the School. Prereq: Vet Med st or cons inst
Typically Offered: Occasionally

PATHO-BIOLOGICAL SCIENCES

PATH-BIO 150 Contemporary Topics and Careers in the Veterinary Sciences Credits: 1
Designed to expose students to topics of importance to the animal health field as well as introduce them to the academic and professional options they will face as undergraduates.
Typically Offered: Fall

PATH-BIO 210 HIV: Sex, Society and Science Credits: 3
HIV kills three million people per year, more than any other infectious disease. We will learn about the transmission, immunology, virology, vaccinology and societal impact of this virus. Six of the world's leading HIV scientists will give guest lectures. Prereq: HS biol crse. Open to all Undergrads
L&S Breadth: Biological Science L&S Level: Elementary L&S Credit: Counts for LAS credit Typically Offered: Fall

PATH-BIO 299 Independent Study Credits: 1 - 3
Prereq: Freshmen or Sophomore or Junior standing & written consent of instructor
Typically Offered: Fall, Spring
PATH-BIO 350 Parasitology Credits: 3
The biology of water-borne, food-borne, soil-borne and vector-borne parasites of animals including humans. Parasites are explored in the context of transmission, associated disease, diagnosis and treatment options, and environmental, cultural and socioeconomic drivers of disease epidemiology. Prereq: BIOLOGY/ZOOLOGY 101 and 102, or BIOLOGY/BOTANY/ZOOLOGY 152 or ZOOLOGY 153, or BIOCORE 381
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

PATH-BIO 351 Parasitology Laboratory Credits: 2
Optional laboratory component of Zoology/Med Micro/AHABS 350. Emphasis on experiments involving live animal parasites, including: trematodes, tapeworms, gapeworms, hookworm, ascarids, trichina, filaria, trypanosomes, coccidia, and malaria. Prereq: Zoology/MM&I/AHABS 350 or con reg
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

PATH-BIO 500 Molecular Biology Techniques Credits: 3
The objective of the course is to familiarize students with recombinant DNA technology. This will be accomplished through lectures as well as hands on exposure to methodologies used in molecular biology laboratories. Prereq: Biochem 501 or 621 or Genetics 466 or Bact 303, 304 or cons inst
L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Spring

PATH-BIO 510 Veterinary Immunology Credits: 3
Current concepts in basic and clinical immunology with special emphasis on domesticated species and aspects of immunology important to students of veterinary medicine. Prereq: Vet Med st, basic crse in microbiology, or cons inst
Typically Offered: Spring

PATH-BIO 512 Introduction to Veterinary Epidemiology Credits: 2
This course introduces basic concepts and approaches to population problems in veterinary medicine. Methods appropriate to investigation of disease outbreaks, surveillance of animal disease and production and the design of epidemiological studies of the determinants of disease are presented. Prereq: Vet Med st or cons inst
Typically Offered: Spring

PATH-BIO 513 Veterinary Virology Credits: 2
Basic and clinical concepts of the viruses and diseases they cause in domesticated species. Prereq: Vet Med st, basic crse in microbiology, or cons inst
Typically Offered: Fall

PATH-BIO 514 Veterinary Parasitology Credits: 3
Basic veterinary parasitology with emphasis on biology, diagnosis, pathophysiology, treatment and management of parasitic infections of veterinary importance. Prereq: Vet Med st or cons inst
Typically Offered: Spring

PATH-BIO 515 Regulatory Veterinary Medicine and Public Health Credits: 2
Introduction to the preventive aspects of veterinary medicine as they relate to zoonoses, environmental hygiene and safety of foods of animal origins. Prereq: Vet Med st or cons inst
Typically Offered: Spring

PATH-BIO 517 Veterinary Bacteriology and Mycology Credits: 4
Emphasis of the course is on the pathogenesis of bacterial and fungal diseases of animals. The laboratories will familiarize students with the methods used to identify representative bacterial and fungal pathogens. Prereq: Enrollment in the vet med pro curric or cons inst
Typically Offered: Fall

PATH-BIO 525 Active, Integrated Learning I Credits: 1
Active Learning experience highlighting problem solving and critical thinking that horizontally and vertically integrates material from other veterinary medicine courses by using exercises constructed in the context of clinical cases or scenaria. Prereq: Yr 1 Vet Med crses
Typically Offered: Fall

PATH-BIO 526 Active, Integrated Learning II Credits: 1
Active Learning experience highlighting problem solving and critical thinking that horizontally and vertically integrates material from other veterinary medicine courses by using exercises constructed in the context of clinical cases or scenaria. Prereq: Yr 1 Vet Med crses
Typically Offered: Spring
PATH-BIO 528 Immunology Credits: 3
Development and functions of immune response in animals; a comprehensive study of experimental humoral and cellular immunity. Prereq: Two sem chem and one sem zoology or gen biology
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Fall

PATH-BIO 529 Immunology Laboratory Credits: 2
Selected techniques illustrating concepts of cellular and humoral immunity as a supplement to Immunology 528. Prereq: Two sem of chem and one sem of zoology or gen biology. Jr or Sr st; cons inst
L&S Level: Intermediate  L&S Credit: Counts for LAS credit  Typically Offered: Spring

PATH-BIO 559 Veterinary General Pathology Credits: 2
General mechanisms of disease at the cellular, tissue, organ, and organismal levels. Cell injury and cell death, neoplasia, inflammation, circulation, and genetics. Prereq: Vet Med st or cons inst
Typically Offered: Fall

PATH-BIO 560 Veterinary Systemic Pathology I Credits: 2
Morphological manifestations of disease in animals. Diseases and disease processes will be discussed by organ system, stressing important diseases in domestic animals. Students should take both Veterinary Systemic Pathology I and II. Prereq: Vet Med st & Path-Bio 559, or cons inst
Typically Offered: Fall

PATH-BIO 561 Veterinary Systemic Pathology II Credits: 4
Morphological manifestations of disease in animals. Diseases and disease processes will be discussed by organ system, stressing important diseases in domestic animals. Students should take both Veterinary Systemic Pathology I and II. Prereq: Vet Med st, Path-Bio 560, or cons inst
Typically Offered: Spring

PATH-BIO 562 Veterinary Clinical Pathology Credits: 4
Concepts and techniques of clinical pathology with emphasis on those procedures that are important in the diagnosis of animal diseases. Prereq: Vet Med st or cons inst
Typically Offered: Spring

PATH-BIO 566 Veterinary Necropsy Rotation Credits: 1
The course is designed to provide experience with necropsy procedures in all animal species and in developing interpretive skills by participating in the School of Veterinary Medicine/Veterinary Medical Teaching Hospital diagnostic anatomic pathology service under the guidance of the faculty for half days during the two week rotation. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring, Summer

PATH-BIO 675 Special Topics Credits: 1 - 5
Topics vary. Prereq: Cons inst
Typically Offered: Fall, Spring, Summer

PATH-BIO 681 Senior Honors Thesis Credits: 2 - 4
Prereq: Honors program candidacy
Typically Offered: Fall, Spring

PATH-BIO 699 Directed Study Credits: 1 - 5
Projects in the laboratory and/or through library work in specific subject area under the direct guidance of faculty member. Prereq: Cons inst
L&S Level: Advanced  L&S Credit: Counts for LAS credit  Typically Offered: Fall, Spring, Summer

PATH-BIO 720 Advanced Immunology: Critical Thinking Credits: 3
Advanced course focusing on current questions in immunological research. Course explores immunology topics including genetic, cellular, and molecular features of immune system fundamental to regulation of immune responses. Course format: discussion of research articles and exposure to research seminars. Prereq: MM&I/AHABS/Bact 528 or equiv
Typically Offered: Every Other Fall
PATH-BIO  740 Pathobiological Sciences Research Rotation  Credits: 2 - 16
Conduct of a mini-research project in which hypothesis development, experimental design, experimentation, data
analysis and written and oral presentation of findings are key elements.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally

PATH-BIO  750 Host-Parasite Relationships in Vertebrate Viral Disease  Credits: 3
Lecture. Detailed study of the pathogenesis of vertebrate viral disease, stressing viral invasion, dissemination,
mechanisms of disease production and resistance, and transmission.  Prereq:  Oncol/Microbio 640 or Path-Bio
513; and Microbio/MM&I/Path-Bio 528; or consent of instructor
Typically Offered:  Occasionally

PATH-BIO  773 Eukaryotic Microbial Pathogenesis  Credits: 3
An advanced course focusing on the molecular, cellular and biochemical mechanisms found in fungal and
protozoan pathogens of humans. A combination of lectures and student presentations will be employed.  Prereq:
Cons inst. MM&I 740 & Path 750 recommended
Typically Offered:  Occasionally

PATH-BIO  775 Externship  Credits: 1 - 24
This course is an elective for fourth year veterinary medical students which offers faculty coordinated experience
in the veterinary medical profession outside the School.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally

PATH-BIO  790 Immunology of Infectious Disease  Credits: 3
Immunobiology and immunogenetics of resistance to infectious disease agents of man and animals;
immunoregulatory mechanisms associated with evasion of host immunity.  Prereq:  MM&I 720 or equiv, MM&I
740 or equiv, & cons inst
Typically Offered:  Occasionally

PATH-BIO  799 Practicum in Veterinary Science Teaching  Credits: 1 - 3
Instructional orientation to teaching at the higher education level in the agricultural and life sciences, direct
teaching experience under faculty supervision, experience in testing and evaluation of students, and the analysis
of teaching performance.  Prereq:  Grad st & cons inst
Typically Offered:  Occasionally

PATH-BIO  875 Special Topics  Credits: 1 - 6
Will vary depending on course focus.  Prereq:  Cons inst
Typically Offered:  Occasionally

PATH-BIO  920 Thesis Research Seminar  Credits: 1
Prereq:  Grad st
Typically Offered:  Occasionally

PATH-BIO  930 Advanced Seminar  Credits: 1
Prereq:  Grad st & cons inst
Typically Offered:  Occasionally

PATH-BIO  990 Research  Credits: 1 - 12
Prereq:  Grad st and cons inst
Typically Offered:  Occasionally

SURGICAL SCIENCES

SURG SCI  501 Radiographic Anatomy of the Dog and Cat  Credits: 1
Normal radiographic anatomy of the dog and cat. This will include soft tissue structures as well as the skeletal
system. Clinical case material to emphasize the need for a thorough knowledge of normal radiographic anatomy.
Prereq:  Vet Med st or cons inst
Typically Offered:  Fall

SURG SCI  542 Veterinary Ophthalmology  Credits: 2
Provides basic instruction in the application of ophthalmic diagnostics and therapeutics to small and large
domestic animals. Professional students should gain sufficient skills and knowledge to accurately diagnose, treat,
prognose or refer domestic animals with common ophthalmic disorders.  Prereq:  Vet Med st or cons inst
Typically Offered:  Fall
SURG SCI 544 Surgery Fundamentals Credits: 2
Introductory material on the scientific foundations of surgery. Prepares student for clinical course work in veterinary surgery and medicine. Prereq: Vet Med st or cons inst
Typically Offered: Spring

SURG SCI 547 Fundamentals of Anesthesiology Credits: 2
This is a comprehensive course in Veterinary Anesthesiology. The first half of the course (~15 lectures) will cover basic principles of sedation, pain physiology, anesthetic drugs, anesthetic monitoring, and the practical considerations in performing anesthesia on healthy veterinary species. The second half of the course (~15 lectures) will focus on anesthetic management of common veterinary species with concurrent medical disease. Lectures will also be included that cover advanced pain management principles and techniques, anesthesia for exotic animal species, and breed considerations in anesthesia. Lectures will be case-based and interactive where appropriate. Prereq: Successful completion of SURG SCI 544
Typically Offered: Spring

SURG SCI 548 Diseases of Wildlife Credits: 3
This course is designed to provide students with an overview of the issues involved across a wide range of wildlife diseases, presented within the context of ecosystem health or "one health". The primary focus of the lectures will be on the biological, epidemiological, clinical, public health and, in some cases, sociopolitical ramifications of wildlife diseases. The course will cover a wide variety of wildlife diseases caused by bacteria, viruses, parasites, prions, and environmental contaminants. Consequences associated with environmental changes on the manifestation of wildlife diseases will also be discussed. This range of diseases will be presented in order to familiarize students with
L&S Breadth: Biological Science L&S Level: Intermediate L&S Credit: Counts for LAS credit Typically Offered: Fall

SURG SCI 630 Small Animal Surgery Credits: 4
The pathophysiology and diagnosis of common general, orthopedic, and neurologic surgical diseases of small animals are presented. The operative management and postoperative care of small animal surgical patients are discussed in detail. Prereq: Vet Med st or cons inst
Typically Offered: Fall

SURG SCI 631 Large Animal Surgery: Orthopedic and Soft Tissue Credits: 3
Instruction will be provided in examination techniques, diagnostic aids and surgical procedures relevant to the gastrointestinal, integumentary, musculoskeletal, respiratory and genitourinary systems of the equine and food animal species. Prereq: Vet Med standing or consent of instructor
Typically Offered: Spring

SURG SCI 632 Small Animal Surgery Laboratory Credits: 2
The basic skills necessary for student participation in the surgical management of small animals in the Veterinary Medical Teaching Hospital are presented. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring

SURG SCI 634 Small Animal Anesthesia Laboratory Credits: 1
In this laboratory the students will apply principles and techniques of veterinary anesthesiology to common companion animals. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring

SURG SCI 638 Veterinary Diagnostic Imaging Credits: 2
Veterinary radiology principles, physical background and diagnostic techniques will be taught and emphasized in laboratory exercises. Prereq: Vet Med st or cons inst
Typically Offered: Spring

SURG SCI 642 Large Animal Surgery: Clinical Rotation Credits: 2
Final year veterinary students will be assigned to the Large Animal Surgery Service. They will be taught the admission, examination, preoperative management, surgical procedures and postoperative management of large animals presented to the Veterinary Medical Teaching Hospital. Prereq: Vet Med st or cons inst
Typically Offered: Fall, Spring, Summer
SURG SCI 644 Clinics-Small Animal Orthopedic Surgery  Credits: 2
Fourth year veterinary student rotation through orthopedic and neurosurgical clinics and surgery.  Prereq:  Vet Med st or cons inst
Typically Offered:  Fall, Spring, Summer

SURG SCI 645 Senior Rotation in Small Animal General Surgery  Credits: 2
A practical course in the diagnosis and treatment of general surgical diseases of small animal species.  Prereq:  Vet Med st or cons inst
Typically Offered:  Fall, Spring, Summer

SURG SCI 646 Veterinary Anesthesiology-Clinical Rotation  Credits: 2
Students will learn clinical anesthesiology techniques including preanesthetic evaluation, induction procedures, intraoperative care, and recovery management of domestic livestock and pets. Critical patient care will be taught.  Prereq:  Vet Med st or cons inst
Typically Offered:  Fall, Spring, Summer

SURG SCI 647 Radiology Clinics  Credits: 2
Clinical clerkship in the Veterinary Medical Teaching Hospital half days over a two week period. Provides exercises in technical and interpretive diagnostic radiology.  Prereq:  Vet Med st or cons inst
Typically Offered:  Fall, Summer

SURG SCI 648 Veterinary Ophthalmology Rotation  Credits: 2
Course provides experience in ocular examination, problem solving skills, and formulation of diagnostic and therapeutic plans for animals presenting with eye disease. Ocular examination as part of the complete physical examination and ocular manifestations of systemic diseases are emphasized.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally

SURG SCI 649 Directed Study  Credits: 1 - 5
Projects in the laboratory and/or through library work in specific subject area under the direct guidance of a faculty member.  Prereq:  Cons inst
L&S Level:  Advanced  L&S Credit: Counts for LAS credit  Typically Offered:  Fall, Spring, Summer

SURG SCI 650 Clinical Ophthalmology Rotation  Credits: 2
Course provides experience in ocular examination, problem solving skills, and formulation of diagnostic and therapeutic plans for animals presenting with eye disease. Ocular examination as part of the complete physical examination and ocular manifestations of systemic diseases are emphasized.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally

SURG SCI 651 Advanced Anesthesiology/Critical Care Medicine  Credits: 2
This course will provide advanced training in the areas of small and large animal anesthesia and/or critical care medicine. The student may elect a general rotation or one particular area of study.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally

SURG SCI 654 Restraint and Anesthesia of Exotic Animals  Credits: 2
Advanced anesthesiology techniques for animals in zoological collections, wildlife parks, and non-domestic settings will be taught in this course. Emphasis on pharmacology and physiology will be stressed.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally

SURG SCI 656 Food Animal Surgery  Credits: 2
The course will provide didactic and surgical experience in the major, common surgical diseases of cattle and pigs.  Prereq:  Vet Med st or cons inst
Typically Offered:  Occasionally
SURG SCI  748 Dentistry and Oral Surgery Rotation Credits: 1 - 3
Dentistry, oral medicine and surgery as well as comprehensive patient care through the use of progressive methods, hospital resources and interdisciplinary specialists. Prereq:  4th yr Vet Med st
Typically Offered: Occasionally

SURG SCI  750 Small Animal Ultrasound Elective Credits: 1
Course will introduce student to hands-on ultrasound imaging and expand on selected portions of ultrasound physics, literature and problem-based case studies. Prereq:  Surg Sci 647
Typically Offered: Occasionally

SURG SCI  775 Externship Credits: 1 - 24
This course is an elective for fourth year veterinary medical students which offers faculty coordinated experience in the veterinary medical profession outside the School. Prereq:  Vet Med st or cons inst
Typically Offered: Occasionally

SURG SCI  812 Research Ethics and Career Development Credits: 2
This course provides instruction in principles and concepts of research ethics through presentations and discussion of case studies. Topics pertinent to development of a successful career in research are also included. Prereq:  Cons inst
Typically Offered: Occasionally