

**Sustainability Focused and Related Course List
University of Connecticut
Storrs Campus**

Undergraduate Courses Focused on Sustainability			
Department	Course Number	Course Name	Description
ARE	Agricultural and Resource Economics		
ARE	1110	Population, Food, and the Environment	The role of agriculture in the growth and development of societies throughout the world. Economic, social, and environmental problems of food production and resource needs in developing and advanced societies
ARE	1150	Principles of Agricultural and Resource Economics	An introduction to agricultural economics, the role of agriculture in today's United States economic system, and relationships that regulate the entire economic environment.
ARE	2235	Marine Economics and Policy	Fundamental theory, methods, and policy implications of environmental and resource policies and economics, with an emphasis on coastal and marine environments. Topics include fisheries management, aquaculture production, marine biodiversity, non-renewable and renewable ocean energy, marine pollution, international ocean governance, anthropogenic climate change impacts, and integrated management and conservation approaches. Designed for students with diverse departmental affiliations
ARE	3260	Food Policy	Analysis of food and agricultural policies in the United States and abroad. Designed for students with diverse departmental affiliations.
ARE	3261W	Writing in Food Policy	A writing intensive course on issues related to food policy, integrated with course content in ARE 3260.
ARE	3434	Environmental and Resource Policy	Economic and policy aspects of natural resource use and environmental quality issues. Designed for students with diverse departmental affiliations.
ARE	3436	The Economics of Integrated Coastal Management	Explores the theory and practice of integrated coastal management (ICM); introduces major concepts, processes, tools and methods of ICM; and analyzes United States and international experiences with ICM.
ARE	3437	Marine Fisheries Economics and Policy	Explores the various natural, human and management components of the fishery system and presents the application of economic and policy analysis for the optimal allocation of resources to a fishery.
ARE	3440W	Writing in Environmental and Resource Policy	A writing intensive course integrated with course content in ARE 3434.
ARE	4305	The Role of Agriculture and Natural Resources in Economic Development	The role of agriculture in the economic development of less developed economies. Microeconomic dimensions of agricultural development, economics of food consumption and nutrition, agricultural technology and productivity, agricultural supply, land tenure and agrarian reform, foreign assistance, trade agreements and agricultural price policy.

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ARE	4438	Valuing the Environment	Conceptual and practical understanding of main methods used to evaluate economic benefits of environmental protection and damages from degradation. Methods include: change in productivity, hedonic pricing, travel cost method, contingent valuation, defensive expenditures, replacement costs, and cost-of-illness. Topics covered include: recreation, soil-erosion, energy, forestry, hazardous waste, air pollution, deforestation, wetlands, wildlife, biodiversity, noise, visibility, water and water pollution.
ARE	4444	Economics of Energy, Climate, and the Environment	Economics of energy issues with special reference to local and regional environmental quality, global climate change, and energy markets. Environmental and economic implications of developing alternative sources of energy. Regulatory policies in relation to transportation, industry, commercial and residential energy use.
ARE	4462	Environmental and Resource Economics	Natural resource use and environmental quality analysis using economic theory. Reviews of empirical research and relevant policy issues.
AGNR	Agriculture and Natural Resources		
AGNR	1098	Current Topics in Agriculture and Natural Resources	Readings, lectures, seminars, and field applications exploring content and associated scientific and social implications of current topics in agricultural, environmental, nutritional and health sciences.
AH	Allied Health		
AH	3174	Environmental Laws, Regulations, and Issues	Overview of the history and framework of federal environmental legislation to protect the environment along with environmental issues, laws and regulations associated with industrial operations.
AH	3175	Environmental Health	Course will focus on the environmental health consequences of exposure to toxic chemicals, food contaminants and radiation. Basic principles of toxicology will be discussed, followed by lectures on specific topics such as: cancer, occupational hazards, radiation, genetic biomonitoring, risk assessment techniques, risk/benefit analysis, social/legal aspects of regulating toxic chemicals, and other related topics.
AH	4570	Pollution Control, Prevention and Environmental Management Systems	Basic knowledge of environmental management systems, and techniques in controlling and preventing pollution from industrial activities.
ANTH	Anthropology		
ANTH	1010	Global Climate Change and Human Societies	A multidisciplinary examination of the nature, anthropogenic drivers, range of expressions, and impacts of contemporary and future global climate change as well as cultural understandings of this significant environmental process and diverse human responses to it.
ANTH	3027	Contemporary Native Americans	Analysis of Native American reservations and urban communities and their relationship to the larger U.S. society. Special focus on federal policy and economic development, cultural identity, and politics of Native Americans.
ANTH	3028	Indigenous Rights and Aboriginal Australia	An introduction to the study and understanding of Aboriginal ways of life and thought. An exploration of the complexity of contemporary indigenous social orders and land rights issues.

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ANTH	3041	Latin American Minorities in the United States	Emphasis on groups of Mexican, Puerto Rican and Cuban origin, including treatment and historical background, social stratification, informal social relations, ethnic perceptions, relations and the concept of Latino identity.
ANTH	3153W	Human Rights in Democratizing Countries	Human rights, political violence, political and legal anthropology, prosecutions of human rights offenders, truth and memory, reconciliation, international justice.
ANTH	3200	Human Behavioral Ecology	The application of the theory of natural selection to the study of human culture and behavior, with emphasis on the interaction between humans and their environment.
ANTH	3302	Medical Ecology	Anthropological perspectives on the interrelationships among culture, biology, environment, and disease. Major topics include ecology and adaptation, population dynamics, nutrition, reproduction, disease in sociological context, health seeking behavior, and the complexity of the interaction of western and non-western medical systems.
ANTH	3309	Violence and Human Rights	Violence and human rights as cultural constructs; human rights claims; war, genocide, terrorism, street crime, domestic violence; deterrence and intervention policy.
ANTH	3325	Introduction to Global Health	Anthropological perspectives on public health in a globalized world, health inequalities within and across countries; diverse social, cultural, and other determinants of global health; pressing global health issues; organizational players involved in addressing global health issues.
ANTH	3326	Global Health and Human Rights	Theories, methods and controversies in the interconnected fields of global health and human rights.
ANTH	3339	Cultural Designs for Sustainability	Correspondences among cultural institution design, collective action failure and success, and cultural resilience.
ANTH	3340	Culture and Conservation	Interdisciplinary analysis of conservation and the human-environment relationship from a cross-cultural perspective. Major topics include sustainability, environmental ethics, climate change, natural disasters, health, and environmental justice.
ANTH	3350	Anthropological Perspectives on Women	Major conceptual and historical problems in the study of gender in anthropology. Women's roles in different historical and contemporary settings, and new understandings of family, kinship, power, and cultural ideologies.
ARTH	Art History		
ARTH	3575	Human Rights and Visual Culture	The problematics of visual representation and media in defining, documenting and visualizing human rights and humanitarianism from the 19th century birth of photography to 21st century social media.
BLAW	Business Law		
BLAW	3175	Legal and Ethical Environment of	The meaning of law and the structure of the legal and regulatory system are studied with a view
CHEM	Chemistry		
CHEM	4370	Environmental Chemistry -	Sources, transport, effects, fate, analytical chemistry, monitoring and management of chemical
CHEM	4371	Environmental Chemistry -	Sources, transport, effects, fate, analytical chemistry, monitoring and management of chemical

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CE Civil and Environmental Engineering			
CE	2010	Civil and Environmental Engineering Professional Issues Seminar	Issues in the practice of Civil and Environmental Engineering: professional ethics, law/contracts, insurance/liability, global/societal issues (e.g., sustainable development, product life cycle), management, business, public policy, leadership, construction management and professional development and licensure.
CE	2210	Decision Analysis in Civil and	Time value of money. Evaluation of alternative projects. Fundamentals of probability theory and
CE	2211	Engineering Economics I	Time value of money. Simple, compound, nominal, and effective interest rate. Present, future, and annual worth methods. Single payment, annuity series, gradient series. Rate of return method. Evaluation of alternative projects.
CE	2310	Environmental Engineering Fundamentals	Concepts of aqueous chemistry, biology, and physics applied in a quantitative manner to environmental problems and solutions. Mass and energy balances, chemical reaction engineering. Quantitative and fundamental description of water and air pollution problems. Environmental regulations and policy, pollution prevention, risk assessment. Written and oral reports.
CE	3530	Engineering and Environmental Geology	Application of geological principles to engineering and environmental problems. Topics include site investigations, geologic hazards, slope processes, earthquakes, subsidence, and the engineering properties of geologic materials. Course intended for both geoscience and engineering majors.
COMM Communication			
COMM	4460	Cross-Cultural Communication	Communication behavior within and across cultures and subcultures.
DIET Dietetics			
DIET	3230	Community Nutrition	Role of community structure, agencies, and resources in the community health relating to nutrition.
DIET	3235	Community Nutrition Practicum I	Supervised practice experiences in community agencies.
DIET	4435	Community Nutrition Practicum II	Application and synthesis of performance requirements in community nutrition.
EEB Ecology and Evolutionary Biology			
EEB	2208	Introduction to Conservation Biology	Patterns of biodiversity and extinction; causes of extinction and population declines; ecological restoration; conservation planning; protection of ecosystem services; implementing conservation actions; conservation economics; conservation law; effects of global change.
EEB	2244	General Ecology	Fundamental ecological dynamics of communities, populations and ecosystems, with emphasis in discussion sections on reading primary literature, problem-solving, and exposure to ecological research techniques.
EEB	2245	Evolutionary Biology	Introduction to evolutionary mechanisms, biogeography, and the history of major groups of plants and animals.
EEB	3203	Developmental Plant Morphology	Analysis of diversity in plant form; principles of plant construction and development.

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EEB	3204	Aquatic Plant Biology	Field and laboratory-oriented study of the anatomy, morphology, ecology, physiology, systematics and evolution of vascular aquatic and wetland plants.
EEB	3205	Current Issues in Environmental Science	Readings and discussions of current issues in environmental science, emphasizing linkages between earth, oceans, atmosphere, and biosphere. Topics include: climate change; watershed changes; alternative energy; population growth; endangered biodiversity; genetically-engineered organisms; deforestation/restoration; risk assessment; tradeoffs; problem-solving; alternative futures.
EEB	3220	Evolution of Green Plants	Evolution of morphological and genomic traits marking the conquest of land, the diversification of land plants, and the significance of plants in the evolution of life on earth, global climates and human civilizations. Laboratory session includes study of morphological and anatomical characters of extant and fossil plants, phylogenetic inference from morphological and molecular characters, and discussion of primary literature.
EEB	3230	Marine Biology	The study of the kinds and distributions of marine organisms. Particular attention is paid to biotic features of the oceans, organism-habitat and relationships and general ecological concepts influencing marine populations and communities. Field trips are required.
EEB	3245	Evolutionary Medicine	Introduction to evolutionary concepts and hypotheses related to disease and human health, and applications of evolutionary thinking in drug discovery, vaccine design, and development of treatment plans for various diseases.
EEB	3247	Freshwater Ecology	Linkages among physical, chemical and biological processes in freshwater habitats.
EEB	3254	Mammalogy	Diversity, behavior, reproduction, ecology, and evolution of mammals. Laboratories cover anatomy, systematics, and distribution of major groups of mammals. Field trips required.
EEB	3256	Plants and Civilization	Plants and animals used by people; origin, history, biology, distribution, and role in development of civilizations.
EEB	3260	Medical Botany	Plants used for medicine: their origin, history, biology, distribution, chemistry, pharmacology, toxicology, and role in the development of civilizations.
EEB	3265	Herpetology	Physiological ecology, reproductive biology, behavior, and community ecology of amphibians and reptiles. Laboratories cover evolution, systematics, and distribution of amphibians and reptiles of the world. Field trips required.
EEB	3266	Field Herpetology	Field-intensive study of diversity, ecology, physiology, behavior, adaptation and identification of the amphibians and reptiles of the region; herpetofaunal research methods. Field trips required.
EEB	3269	Social Insects	Behavior, ecology, evolution of social insects: ants, wasps, bees, and termites.
EEB	3271	Systematic Botany	Classification, identification, economic importance, evolution and nomenclature of flowering plants. Laboratory compares vegetative and reproductive characters of major families.
EEB	3894	Undergraduate Seminar	Credits and hours by arrangement. May be repeated for credit with a change in topic. Content varies with instructor.

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EEB	4120	Paleobiology	Ancient life, including the preservation of organisms as fossils, evolution, ecology, geobiology, biostratigraphy, and major events in the history of life. Includes microorganisms, animals, and plants.
EEB	4215	Physiological Ecology of Animals	Physiology of animals in an evolutionary context: how individuals cope and how species adapt to natural environments. Lectures, student-led presentations, and critical discussions of current journal articles.
EEB	4230W	Methods of Ecology	An intensive introduction to field and laboratory methods in ecology. Emphasis will be placed on the use of quantitative and analytical techniques in physiological, population, community and ecosystem ecology. An introduction to sampling procedures, data collection and statistical analysis. Computers will be used to model population and community dynamics and to analyze ecological data sets. Laboratory periods will consist of field and laboratory problems; field trips required, including occasional weekend trips.
ECON	Economics		
ECON	1107	Honors Core: Economics, Nature, and the Environment	Impact of nature on societies; effects of geography and climate on economic development and income inequality. Impact of humans on their environment; environmental problems; collapse of societies; sustainable development
ECON	1108	Game Theory in the Natural and Social Sciences	Introduction to game theory. Applications in the natural and social sciences and technology may include electric power auctions, evolutionary biology, and elections.
ECON	1179	Economic Growth and the Environment	Simple economic concepts and tools and their application to the interactions between growing economies and the environment. Concepts include: supply and demand; models of economic growth; theory of externalities; valuation of natural capital and environmental services; trade theory.
ECON	2127	Beyond Self-Interest	A contrast to the assumptions, values, methodology, and philosophical underpinnings of mainstream economic analysis. Altruism, role of social norms and culture, importance of work, moral assessment of economic systems, feminist and ecological economics.
ECON	2441	Labor Economics	Economics of labor: human capital theory, discrimination, unemployment, manpower policy, and trade unions.
ECON	2445	Economic Foundations of Gender Inequality	Economic approaches to gender inequality in political representation, economic opportunities, access to education, and health.
ECON	2456	Economics of Poverty	Analysis of poverty and income maintenance programs: theories of income distribution and comparison of public policies in the U.S. and other countries.
ECON	3128	Economic and Social Human Rights	Conceptual bases, types, measurement, and policy applications of economic and social human rights.
ECON	3451	Health Economics	Economic analysis of the health sector: organization and performance of health care delivery systems; economic behavior of patients and providers; markets for health services; health-care finance and insurance; health-care policy; and cost-benefit analysis of health-care programs.

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ECON	3466	Environmental Economics	Application of economic reasoning to environmental issues. Topics include air and water pollution and the management of natural resources; market failure and environmental regulation; market-based mechanisms; cost-benefit analysis, environmental valuation, and program evaluation; environmental justice from an economic perspective.
ECON	3468	Economics of the Law	The law as an economic institution. Primary focus on the Common Law, property, tort, and contract. Applications to pollution control, land-use, hazardous wastes, product liability, and worker safety. Ethical as well as economic approaches to the law.
EDCI	Education Curriculum and Instruction		
EDCI	2100	Power, Privilege and Public Education	Service learning course. Interdisciplinary analysis of the development and structure of schooling, teaching, and learning in American society; impact of public education on its many and diverse stakeholders. Includes topics such as: equity and excellence, historical, socio-cultural, philosophical, political, and legal frameworks of education, and current educational reform efforts.
EDLR	Educational Leadership		
EDLR	1161	Husky Reads: Introducing Food and Nutrition to Children through Reading	Supervised field work and experiential learning in nutritional literacy for preschoolers and young children, geared to individual, dual, and team activities. Readings and reflections.
EDLR	1162	Health and Education in Urban Communities	Historical and social forces that shape health and education in Connecticut's urban communities. Poverty, culture, and identity; their impacts on children's health, nutrition, schooling, and opportunities for success. Analysis of social policies, norms, and beliefs; their impact on issues of justice. Includes service learning.
ENGR	Engineering		
ENGR	1166	Foundations of Engineering	Introductory topics in a specific engineering major. Topics selected by Department or Program, or Regional Campus faculty. Students to select section based on their selected or intended major. In the context of the discipline, students would develop skills transferable to other engineering disciplines.
ENGR	3209	Sustainable Energy in the 21st Century	Political, socioeconomic, environmental, science, and engineering challenges of energy sources. Comparison of feasibility and sustainability of energy policies around the world.
ENGR	3257	Assessment for Human Rights and Sustainability	Foundational concepts of human rights and environmental impacts pertaining to global supply chains. Regulations and voluntary standards in engineering-intensive sectors, including infrastructure, biofuels, electronics. Case study analysis of corporate assessment practices for labor rights protection and environmental impacts.
ENGR	3315	Manufacturing 4P: People, Planet, Process and Profit	The changes to manufacturing over time, due to increased concerns for the safety of their workers and designs to avoid overuse injuries; environmental concerns to minimize pollution and reduce material use and increase recycling; new fabrication techniques that must be considered and their impact on quality, and the profitability resulting from the interaction of all of these variables. How the four Ps are impacted as the product progresses from design through production.

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ENGL		English	
ENGL	1601W	Race, Gender, and Culture Industry	Cultural construction of race and gender in English-language literature, film, and music.
ENGL	3635	Literature and the Environment	Ecocritical approaches to literary treatment of global environmental issues.
ENVE		Environmental Engineering	
ENVE	1000	Environmental Sustainability	Detailed examination of anthropogenic impacts on the environment, resulting from the need for energy, food and shelter. Subtopics in the broad areas of energy, food, shelter, waste, water, sustainable development will be grounded with case studies of UCONN activities/programs in sustainability. Overarching and linking each topic is the impact of population and water resources with a focus on environmental literacy. Resolution of scientific/technological, public policy and economic aspects of environmental sustainability issues will be explored, including strategies for success, and possible pitfalls, in achieving environmental sustainability in the subtopic areas.
ENVE	2310	Environmental Engineering Fundamentals	Concepts of aqueous chemistry, biology, and physics applied in a quantitative manner to environmental problems and solutions. Mass and energy balances, chemical reaction engineering. Quantitative and fundamental description of water and air pollution problems. Environmental regulations and policy, pollution prevention, risk assessment. Written and oral reports.
ENVE	2320	The Environmental Debate II	Structured review of environmental issues and active debate during class time. Presentation of current <u>environmental issues by environmental professionals and experts.</u>
ENVE	3100	Climate Resilience and Adaptation: Municipal Policy and Planning	An interdisciplinary study of climate change focusing on the local, municipal scale: impacts, policy, vulnerability and adaptation with emphasis on tools such as vulnerability assessments that help local <u>communities determine priorities for adaptation efforts.</u>
ENVE	4310	Environmental Modeling	Systematic approach for analyzing contamination problems. Systems theory and modeling will be used to assess the predominant processes that control the fate and mobility of pollutants in the environment. Assessments of lake eutrophication, conventional pollutants in rivers and estuaries and toxic chemicals <u>in groundwater.</u>
ENVE	4320	Ecological Principles and Engineering	An introduction to ecology and natural treatment systems for managing waste and pollutants with a focus on aqueous contaminants. Topics will include stormwater management, treatment wetlands, restoration ecology, composting, and bioremediation.
ENVS		Environmental Sciences	
ENVS	2000	Integrating Humans and the Environment	Designed for students who have had a foundation in the basic concepts of environmental sciences. Exploration of critical environmental issues from a science-based perspective, including climate change, energy resilience, ecosystem services, and sustainability. The challenges, tradeoffs, and potential solutions to problems related to human modification of the environment, from an <u>interdisciplinary perspective.</u>

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EVST		Environmental Studies	
EVST	1000	Introduction to Environmental Studies	Interdisciplinary survey of relationships between humans and nature; investigation of specific environmental themes and contemporary issues
EVST	3340	Culture and Conservation	Interdisciplinary analysis of conservation and the human-environment relationship from a cross-cultural perspective. Major topics include sustainability, environmental ethics, climate change, natural disasters, health, and environmental justice.
EVST	3412	Global Environmental Politics	Politics of how humans and natural systems interact. Managing the global environment, regulating resource commons, and coordinating to solve environmental problems.
GEOG		Geography	
GEOG	1070	Natural Disasters and Environmental Change	Climate change, global warming, natural hazards, earth surface processes, and the impact these have on populations now and in the past.
GEOG	1300	Climate, Weather, and the Environment	Interactions between weather and climate and the human and natural environment. Emphasis on understanding the linkages between natural processes and societal/environmental issues.
GEOG	1302	GIS Modeling of Environmental Change	An introduction to environmental processes and patterns, especially assessing change in environmental systems using spatial analysis techniques. Students will map field sites using Global Positioning System technology and aerial photographs, collect field data on various environmental systems, and build and test a Geographical Information System-based environmental model.
GEOG	2000	Globalization	Globalization as a complex, multidimensional process. Linkages and interconnectedness between spatial processes and social, cultural, economic, political, and environmental change around the world today. Theory and impacts of economic, social, political, and cultural globalization through case studies at the local, regional, national, and international scales.
GEOG	2100	Economic Geography	Examination of the relationship among economic, cultural, and geographic processes which affect the patterns, structure, and growth or decline of economic activities. The global extent of the agricultural, manufacturing, and service sectors is presented with particular emphasis on the interdependency of non-western and western economies.
GEOG	2320	Climate Change: Current Geographic Issues	Introduction to the science, impacts, and politics of climate change from a geographic perspective. Examination of physical mechanisms, extreme weather events, impacts on water, food and energy systems, impacts on polar regions, energy strategies and solutions, policy and negotiations, and mitigation and adaptation strategies.
GEOG	2400	Introduction to Sustainable Cities	Pathways to make cities more sustainable from social, economic, and environmental perspectives. Topics include sustainable transportation, renewable energy, recycling of waste, and green infrastructure in contemporary metropolitan areas in developed and developing nations.

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GEOG	3100	The Geography of Economic Development	Analysis of processes and patterns of economic organization and spatial change at the international, national and intra-national scales. Examines development from both linear (neo-classical) and structuralist (political economy) perspectives, and emphasizes relationships between advanced and developing economies within the context of the global economy.
GEOG	3220	Race and Food	Analysis of the relationship between race, geography and food/agriculture through the lens of African Americans. Topics include food and the African Diaspora, the effects of slavery on food and agriculture, migration and the spread of food traditions and growing practices, community food security, and whiteness in the alternative food movement.
GEOG	3320W	Environmental Evaluation and Assessment	Concepts and methods of environmental analysis in contemporary geography. Emphasis on the ecological impact of human activities and on the evaluation and assessment of existing and future environments.
GEOG	3330W	Environmental Restoration	Restoration of natural environments including rivers, wetlands, coastal areas, grasslands and forests. Theoretical discussions of restoration ecology, management and engineering concerns. History of environmental restoration; relevant policy debates; specific case studies of river, wetland, coastal, grassland, and forest restoration.
GEOG	3340	Environmental Planning and Management	The basic elements of the conflict between human environments and natural systems are considered, along with the methods of analysis and resolution of problems caused by that conflict. Emphasis on public policy related to environmental issues. A fee of \$10 is charged for this course.
GEOG	3350	Global Change, Local Action: A Geography of Environmentalism	How global-local linkages of geographic scope and scale impact human-environment interactions.
GEOG	3400	Climate and Weather	Analysis of atmospheric processes giving rise to weather systems and climate patterns. The dynamic integration of atmospheric systems is emphasized.
GEOG	3410	Human Modifications of Natural Environments	A geographical and historical interpretation of the changing relationships between culture and environment. Emphasis on the modification of the biophysical environment by preagricultural, agricultural and urban societies in Europe, southwest Asia, and North America.
GEOG	3700	The American Landscape	Survey and analysis of contemporary U.S. and Canadian landscapes, including consideration of the environmental, social, political, and economic forces that generate them.
GSCI	Geoscience		
GSCI	1010	Dinosaurs, Extinctions, and Environmental Catastrophes	A reconstruction of the Mesozoic world of the dinosaurs based on paleontological and geological evidence. Past and present environmental catastrophes leading to mass extinctions and changes in biodiversity. Fundamental concepts of geology, stratigraphy, historical geology, and paleoclimatology.
GSCI	1050	Earth's Dynamic Environment	Origin and history of planet Earth, emphasizing how rock, air, water, and life interact at different scales to produce the earth's crust, landforms, life systems, natural resources, catastrophes, and climatic regimes. Provides a scientific context for human-induced global change. A fee of \$10 is charged for this course.

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GSCI	1051	Earth's Dynamic Environment (Lecture)	Origin and history of planet Earth, emphasizing how rock, air, water, and life interact at different scales to produce the earth's crust, landforms, life systems, natural resources, catastrophes, and climatic regimes. Provides a scientific context for human-induced global change.
GSCI	1052	Earth's Dynamic Environment (Laboratory)	Laboratory complement to GSCI 1010, 1051, 1055, or 1070. Provides an opportunity to work with specimens (minerals, fossils, rocks), terrain images, maps, physical models, and simulation experiments. Includes local field trips. A fee of \$10 is charged for this course.
GSCI	1053	Discussion Earth and Life through Time	Faculty-taught, weekly discussions to enhance GSCI 1050 and 1051. Emphasis and approach will vary, but all sections will track the lecture syllabus.
GSCI	1054	Field Trips Earth and Life through Time	Two or more faculty-led weekend field trips to nearby sites of interest, designed to enhance GSCI 1050 and 1051.
GSCI	1070	Natural Disasters and Environmental Change	Climate change, global warming, natural hazards, earth surface processes, and the impact these have on populations now and in the past.
GERM	German		
GERM	1175	Human Rights and German Culture	Study of philosophical discourse on human rights from the Enlightenment to the present and analysis of related ethical problems in conjunction with an examination of relevant literary texts, film, and other art forms. Germany's role in the development of international human rights instruments.
GERM	2400	The Environment in German Culture	Ecological thinking in German culture from the Greeks (Plato) to the Greens (Amery). The second half of the semester consists of student projects on current environmental policies in the European Union.
HCMI	Healthcare Management and Insurance Studies		
HCMI	4225	Health and Social Insurance	Addresses various business practices associated with providing private health insurance such as underwriting, medical claims cost control, pricing, and marketing. In that context, managed care techniques and benefit package designs including consumer directed health plans, and value-based insurance design, are discussed. Attention is also paid to design and functioning of various social insurance programs such as Medicare, Medicaid, unemployment compensation, disability insurance, workers compensation, and Social Security.
HCMI	4243	Health Law and Policy	Introduction to the United States legal system as it relates to health care, public health and ethics. Sessions represent important applications of law to health including the powers of the state governments; privacy and confidentiality in health care; the right to privacy; the right to refuse treatment and end of life issues; hospital, physician and managed care liability; the Americans with Disabilities Act; and public health policy and advocacy. This course is structured to encourage lively and interesting in-class discussions of legal and ethical principles as they relate to the health care system.

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HIST	History		
HIST	3202	International Human Rights	Historical and theoretical survey of the evolution of human rights since 1945.
HIST	3204W	Science and Social Issues in the Modern World	Social context of science in the United States and Europe since 1850. Genetics and eugenics; ecology and the environment; nuclear issues; gender, race, and science.
HIST	3540	American Environmental History	Transformations of the North American environment: the effects of human practices and policies, varying ideas about nature across cultures and time periods; and the rise of environmental movements.
HIST	3542	New England Environmental History	Interdisciplinary history of New England's terrestrial and marine environmental change. Links among land, sea, and human natural resource use and management, including precontact patterns, colonial impacts, agricultural decline, industrial pollution, overfishing, re-forestation, and the rise of eco-tourism.
HIST	3575	Latinos/as and Human Rights	Latino/a issues related to human, civil and cultural rights, and gender differences.
HDFS	Human Development and Family Studies		
HDFS	3342	Family Resource Management	Decision-making process of families concerning the utilization of financial, personal, environmental and social resources.
HRTS	Human Rights		
HRTS	1007	Introduction to Human Rights	Exploration of central human rights institutions, selected human rights themes and political controversies, and key political challenges of contemporary human rights advocacy.
HRTS	2170W	Bioethics and Human Rights in Cross-Cultural Perspective	Philosophical examination of the ethical and human rights implications of recent advances in the life and biomedical sciences from multiple religious and cultural perspectives.
HRTS	3153W	Human Rights in Democratizing Countries	Human rights, political violence, political and legal anthropology, prosecutions of human rights offenders, truth and memory, reconciliation, international justice.
HRTS	3200	International Human Rights Law	International and regional human rights law, institutions, and regimes; specialized topics include corporate social responsibility, women's human rights, truth commissions, humanitarian intervention, international criminal law, monitoring, and compliance.
HRTS	3202	International Human Rights	Historical and theoretical survey of the evolution of human rights since 1945.
HRTS	3209	Sustainable Energy in the 21st Century	Political, socioeconomic, environmental, science and engineering challenges of energy sources; comparison of feasibility and sustainability of energy policies around the world.
HRTS	3212	Comparative Perspectives on Human Rights	Cultural difference and human rights in areas of legal equality, women's rights, political violence, criminal justice, religious pluralism, global security, and race relations.
HRTS	3219	Topics in Philosophy and Human Rights	What are human rights? Why are they important? Topics may include the philosophical precursors of human rights, the nature and justification of human rights, or contemporary issues bearing on human rights.
HRTS	3220	Philosophical Foundations of Human Rights	Ontology and epistemology of human rights investigated through contemporary and/or historical texts.
HRTS	3221	Latinos/as and Human Rights	Latino/a issues related to human, civil and cultural rights, and gender differences.

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HRTS	3250	Human Rights and New Technologies	The role of new technologies in the fulfillment, protection, and enforcement of human rights; technology-related human rights benefits and risks, including privacy, security, and equality; technical and legal innovations for balancing benefits and risks.
HRTS	3257	Assessment for Human Rights and Sustainability	Foundational concepts of human rights and environmental impacts pertaining to global supply chains. Regulations and voluntary standards in engineering-intensive sectors, including infrastructure, biofuels, electronics. Case study analysis of corporate assessment practices for labor rights protection and environmental impacts.
HRTS	3326	Global Health and Human Rights	Theories, methods and controversies in the interconnected fields of global health and human rights.
HRTS	3430	Evaluating Human Rights Practices of Countries	Examination of the ways in which governments, businesses, NGOs, IGOs, and scholars assess which human rights are being respected by governments of the world. Hands-on experience in rating the level of government respect for human rights in countries around the world.
HRTS	3445	Economic Foundations of Gender Inequality	Economic approaches to gender inequality in political representation, economic opportunities, access to education, and health.
HRTS	3475	Economic Development and Human Rights	Microeconomics of economic development and human rights. Impacts of human capital, health, education, on well-being and poverty.
HRTS	3575	Human Rights and Visual Culture	The problematics of visual representation and media in defining, documenting and visualizing human rights and humanitarianism from the 19th century birth of photography to 21st century social media.
HRTS	3619	Topics in Literature and Human Rights	Study of literature from various historical periods and nationalities concerned with defining, exploring, and critiquing the idea of universal human rights.
HRTS	3831	Human Rights in the United States	Sociological analyses of human rights issues in the United States, including economic, racial, and gender justice; prisoner's rights and capital punishment; the role of the United States in international human rights agreements and treaties; and struggles on behalf of human rights.
HRTS	3837	Sociology of Global Human Rights	Comparative approach to the study of human rights in the United States and elsewhere around the world from a sociological perspective.
HRTS	4291	Service Learning Seminar/Internship	Combination of internship work within the larger human rights community with regular classroom meetings for reflection/analysis on the application of human rights concepts and practices. Includes the production of a written/media portfolio of semester's work.
JOUR	Journalism		
JOUR	3046	Environmental Journalism	Explores specialized coverage of environmental issues by journalists, emphasizing news reporting with the opportunity to produce print, visual and multimedia news reports.
LAND	Landscape Architecture		
LAND	2210	The Common (Shared) Landscape of the USA: Rights, Responsibilities and Values	An introduction to the study of vernacular landscapes in the USA with an emphasis on the relationship between societal values and land use patterns.

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LAND	3230W	Environmental Planning and Landscape Design	Theories, concepts and methods for sustainable design of the land to balance the needs for conservation and development. Topics include land use planning, ecological design, and cultural and natural landscape assessment at a variety of scales and settings.
LLAS	Latino and Latin American Studies		
LLAS	3221	Latinos/as and Human Rights	Latino/a issues related to human, civil and cultural rights, and gender differences.
LLAS	3271	Immigration and Transborder Politics	U.S. immigration policy, trans-border politics, and the impact diasporas and ethnic lobbies have on U.S. foreign policy, with the emphasis on Latino diasporas.
LLAS	3660W	History of Migration in Las Americas	Applies broad chronological and spatial analyses of origins of migration in the Americas to the experiences of people of Latin American origin in Connecticut. Addresses a range of topics from the initial settlement of the Americas to 21st century migrations.
LING	Linguistics		
LING	1020	Language and Environment	Effects of geography, society, and politics, on language use and variation (sociolinguistics). The geographical spread, growth and death of languages (language ecology).
MARN	Marine Sciences		
MARN	1001	The Sea Around Us	The relationship of humans with the marine environment. Exploitation of marine resources, development and use of the coastal zone, and the impact of technology and pollution on marine ecosystems.
MARN	3000	The Hydrosphere and Global Climate	Interactions of the physical and chemical components of the global water and energy cycles and how all apply to climate. The science behind climate change predictions reviewed and applied to case studies.
MARN	3003Q	Environmental Reaction and Transport	An introduction to the chemical/biological reactions and transport dynamics of environmental systems. Mass balances, elementary fluid mechanics and the coupled dynamics of lakes, rivers, oceans, groundwater and the atmosphere as biogeochemical systems.
MARN	3014	Marine Biology	The study of the kinds and distributions of marine organisms. Particular attention is paid to biotic features of the oceans, organism-habitat and relationships and general ecological concepts influencing marine populations and communities.
MARN	3017	Plankton Ecology	Ecology of planktonic organisms (bacteria, protista and metazoa). The evolutionary ecology concept, methods of research, special features of aquatic habitats; adaptations to aquatic environments; population biology; predation, competition, life histories, community structure, and role of plankton in ecosystem metabolism.
MARN	3030	Coastal Pollution and Bioremediation	Overview of processes and compounds leading to pollution in the nearshore marine environment. The impact of pollution on the marine food web and its response is emphasized. Alleviation of pollution through metabolism of organisms, including bacteria, seagrasses, and salt marshes.
MARN	3801W	Marine Sciences and Society	Scientific analysis of coastal zone issues and their implications for society. Written analysis and discussion of primary literature.

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MARN	3811	Seminar on Marine Mammals	Instructors from different areas of expertise discuss the natural history, evolution, anatomy, physiology, husbandry, and conservation of marine mammals. Current research is emphasized.
MARN	4002	Science and Coastal Environment	Specific cases of multiple impacts on environmental resources and coastal habitats. Current scientific understanding as a basis for sociopolitical decision-making (e.g., land-use impacts on coastal processes in relation to zoning regulation and water-quality criteria).
MARN	4018	Ecology of Fishes	General concepts in fish ecology such as distribution, feeding, bioenergetics, growth, larval fish ecology, biotic interactions, life history evolution and other contemporary research topics.
MARN	4066	River Influences on the Marine Environment	Influences of rivers on estuaries, coastal and open water properties, energy budgets and ecosystems including inputs of buoyant waters, sediments and pollutants and variability from storms, seasons, human alterations and climate change.
MAST	Maritime Studies		
MAST	3544	Atlantic Voyages	Seafaring and society since the age of Columbus.
MAST	3832	Maritime Law	International and domestic legal concepts concerning jurisdiction in a maritime setting.
MSE	Materials Science and Engineering		
MSE	4801	Materials for Alternative, Renewable Energy	Overview of energy conversion and storage systems – centralized and distributed generation to stationary and motive batteries; efficiency calculation and thermodynamics; electrochemistry – primary and secondary batteries; fuels – chemistry, processing, impurities; combustion, gasification and electrochemical systems; materials requirements; bulk and surface properties; metals, ceramics and superalloys; gas-metal interactions; gas – liquid – metal interactions; development trend – alloying principles, coatings, claddings; alloy processing and coating techniques.
ME	Mechanical Engineering		
ME	3239	Combustion for Energy Conversion	Introduction to combustion processes and chemical kinetics. Mechanism of the formation of pollutants such as nitrogen oxides, carbon monoxide, soot, and unburned hydrocarbons in stationary and vehicular power plants.
ME	3264	Applied Measurements Laboratory	Application of fundamental measurement techniques developed in ME 3263 to various mechanical systems and processes. Hands-on laboratory experiences include measurements in energy conversion, solid mechanics, dynamics, and fluid and thermal sciences, as well as statistical methods to analysis of experimental data.
ME	3270	Fuel Cells	Advanced course on fuel cells as an alternative energy conversion technology. Subjects covered include: thermodynamics and electrochemistry of fuel cells, operating principles, types of fuel cells, overview of intermediate/high temperature fuel cells, polymer electrolyte fuel cells and direct methanol fuel cells.

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ME	3285	Sustainable Energy Sources and Systems	Topics include current energy sources and usage, environmental pollution from use of fossil fuels, nuclear energy, biomass energy, geothermal energy resources and usage, hydroelectric, solar, wind and tidal energy conversion principles, hydrogen generation and usage in electrochemical devices, energy economics and effects of energy pricing on economically viable energy options.
MUSI	Music		
MUSI	1003	Popular Music and Diversity in American Society	An introduction to popular music and diversity in America: jazz, blues, Top-40 pop, rock, hip-hop and other genres. Musicians and their music studied in the context of twentieth-century and contemporary American society, emphasizing issues of race, gender, class, and resistance.
MUSI	1005	Honors Core: Music and Nature, Music and the Environment	An exploration of how 1) musicians have drawn upon nature as a source of inspiration, and 2) music has been used, in the recent past and continuing today, to call attention to the dangers facing the environment.
MUSI	1006	Earthtones: Vocal Ensemble	World music vocal ensemble that brings to life the songs of specific cultures as a means to gain knowledge and understanding of communities, culture, spirituality and social justice. A fee of \$25 is charged for this course.
NRE	Natural Resources and the Environment		
NRE	1000	Environmental Science	An introduction to basic concepts and areas of environmental concern and how these problems can be effectively addressed. Topics include human population; ecological principles; conservation of biological resources; biodiversity; croplands, rangelands, forestlands, soil and water conservation; pollution and water management; and wildlife and fisheries conservation.
NRE	1235	Environmental Conservation	Overview of the history of natural resource use and environmental conservation policy development from prehistoric to present times. Examination of the emergence of the 20th century conservation movement in North America and the transition to the environmental movement is used to highlight recurring environmental issue themes such as: private ownership vs. public trust doctrine; commercial trade in natural resources; development vs. protection; sustainability; and the role of society and governments in regulation. Through selected readings and case studies, students are challenged to begin development of their personal ethics regarding the development, conservation and protection of the environment.
NRE	2215	Introduction to Water Resources	Introduction to surface and ground water resource assessment, development and management. Integration of scientific, legal, environmental and human factors that enter into developing and maintaining sustainable water resources. Examines current and future plight of water shortages and water quality issues here and abroad.
NRE	2455	Forest Ecology	Forest structure and functional processes and their relation to physical environment (light, temperature, water, soil); the influence of time (succession, disturbance, stand dynamics) and space (landscape ecology, ecosystem management). Laboratory will be in the field or computer lab.

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NRE	2600	Global Sustainable Natural Resources	Sustainable management of natural resources across cultural, political, and ecological boundaries. Topics include marine and freshwaters, forests, food production and urban development.
NRE	3105	Wetlands Biology and Conservation	Principal wetland habitats of North America are surveyed, and the relationship of wildlife associations to biological and physical features of wetlands is reviewed. Emphasis is placed on issues relating to wetlands conservation and management.
NRE	3115	Air Pollution	The meteorology, effects and controls of air pollution.
NRE	3146	Climatology	Fundamentals of climatology: elements, processes, and mechanisms that govern or affect the climate and climate change, climatological theories and observations, climate across spatial and temporal scales, scientific methods for climatic analysis and applications.
NRE	3201	Conservation Law Enforcement	Basic pre-professional course for majors in natural resource conservation and related disciplines. Recommended for persons considering a career in wildlife, fisheries, law enforcement, or other natural resource conservation and management disciplines.
NRE	3205	Stream Ecology	A broad overview of stream ecology will be presented. Emphasis will be placed on types of lotic habitats and the diversity and community patterns of organisms which inhabit them. Adaptations to life in running water and energy flow in stream ecosystems will also be discussed. Efforts targeted at the conservation of streams will be integrated throughout the semester. One or more field trips required.
NRE	3245	Environmental Law	An overview of environmental law including the common law principles of nuisance, negligence, and trespass. Students will become acquainted with legal research techniques; emphasis will be on federal, state, and municipal programs addressing clear air, clean water, hazardous waste, inland wetlands, coastal zone management, and prime agricultural farm land and aquifer protection.
NRE	3265	Sustainable Urban Ecosystems	Natural resources in urban systems from the perspectives of natural science and social science. Managing ecosystems in and in relation to urban environments.
NRE	3305	African Field Ecology and Renewable Resources Management	An intensive, field oriented methods course conducted primarily in South Africa at the Basil Kent Field Station, Great Fish River Reserve in collaboration with the University of Fort Hare. An introduction to South African culture and history, ecology, and natural resources is provided in weekly meetings during the semester. This is followed by approximately three weeks in the field in South Africa (a required part of the course). Topics covered include vegetation and faunal surveys, data collection and analysis, biodiversity monitoring, and conservation management, and other selected themes.
NRE	3500	Exurban Silviculture	Application of ecological principles in controlling forest establishment, composition, health and growth. Study of cultural treatments that maintain and enhance desired benefits from the forest on a sustainable basis, with an emphasis on the diverse needs and values of landowners and society within the exurban forest.
NRE	3674	Introduction to Environmental and Natural Resources of China	Basics about the environmental and natural resources of China, including geography, climate, agriculture, history and culture.

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NRE	3675	Environmental and Natural Resources of China	Introduction to the environment of China, focusing on the management and sustainability of natural resources and environmental systems. A field trip to China is required.
NRE	4000W	Natural Resources Planning and Management	Concepts and methods of planning for the allocation, management, and utilization of terrestrial and aquatic ecosystems. Techniques and methods of managerial decision making. Written technical reports required.
NRE	4165	Soil and Water Management and Engineering	Floodplain management, erosion and erosion control, reservoir management, storm water control, watershed management, and on-site sewage treatment systems. Written technical reports, use of spreadsheets and field work required. Some field trips required.
NRE	4170	Climate-Human-Ecosystem Interactions	Understanding pathways of interactions among climate change, ecological processes, and human activities through time are studied. Feedbacks that either reinforce or limit such interactions will also be discussed.
NRE	4340	Ecotoxicology	Understanding the fate and effects of environmental contaminants. Major classes of contaminants and their sources, uptake, biotransformation, elimination, bioaccumulation, biomagnification and toxicological effects in organisms will be covered. Discussions are focused around case studies, readings, and class presentations that further explore toxicant exposures and responses in ecosystems.
NRE	4475	Forest Management	Application of forest mensuration, ecology, and silviculture in sustainable forest management. Field trips required.
NRE	4601	Current Topics in Environmental and Natural Resources - Honors	An exploration of a diverse set of environmental and natural resource topics that will be examined using a continuum of applied-to-theoretical approaches. Each week, readings will introduce and familiarize students with a guest lecturer's research and allow students to engage in an in-depth discussion with each lecturer prior to attending their seminar. Honors students will meet for an hour after each seminar and will include student-led discussion and presentations on the seminar research topic.
NUSC	Nutritional Sciences		
NUSC	1161	Husky Reads: Introducing Food and Nutrition to Children through Reading	Supervised field work and experiential learning in nutritional literacy for preschoolers and young children, geared to individual, dual, and team activities. Readings and reflections.
NUSC	1167	Food, Culture, and Society	Social, cultural, and economic factors affecting food intake and nutritional status. Includes contemporary topics such as world food problems, hunger in the United States, dieting and eating disorders, health foods and vegetarianism.
NUSC	3180	Experience in Community Nutrition	Supervised field work with community nutrition education or problem-solving. Readings and reports.
NUSC	3230	Community Nutrition	Role of community structure, agencies, and resources in community health relating to nutrition.
PHRX	Pharmacy		
PHRX	4054	Urban Service Track	An interprofessional program designed to develop future health professionals dedicated to caring for urban underserved populations and working in interprofessional teams.

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PHRX	5167	Urban Service Track	The Urban Service Track (UST) scholar program is an innovative educational program that provides health professions students with the opportunity to gain valuable skills and experiences in the care of urban, underserved patients, while working and learning together. UST Scholars collaborate in all activities as inter-professional teams composed of students from the UConn Schools of Pharmacy, Dental Medicine, Medicine and Nursing and the Connecticut Area Health Education Center (AHEC) program. UST Pharmacy Scholars focus on teaching both patients and other health profession students regarding their role on the health care team.
PHIL	Philosophy		
PHIL	1107	Philosophy and Gender	Topics concern social ethics and gender, such as gender equality and the impact of gender norms on individual freedom. Specific topics are examined in light of the intersections between gender and race, ethnicity, class, and sexual orientation
PHIL	2170W	Bioethics in Human Rights in Cross-Cultural Perspective	Philosophical examination of the ethical and human rights implications of recent advances in the life and biomedical sciences from multiple religious and cultural perspectives.
PHIL	3216	Environmental Ethics	Inquiry into obligations to, or concerning, the environment, particularly the moral standing of animals, species, ecosystems, and natural objects.
PHIL	3219	Topics in Philosophy and Human Rights	What are human rights? Why are they important? Topics may include the philosophical precursors of human rights, the nature and justification of human rights, or contemporary issues bearing on human rights.
PHIL	3220	Philosophical Foundations of Human Rights	Ontology and epistemology of human rights investigated through contemporary and/or historical texts.
PHYS	Physics		
PHYS	1030Q	Physics of the Environment	Concepts of physics applied to current problems of the physical environment: energy, transportation, pollution.
PHYS	1035Q	Physics of the Environment with Laboratory	Concepts of physics applied to the physical environment, particularly to current problems related to energy, transportation, and pollution. These relationships will be further explored in the laboratory section.
POLS	Political Science		
POLS	3203	Environmental Policy and Institutions	Development of environmental policies and institutions and their effects on the motivations and the actions of individuals and groups with implications for questions of equity, justice, and sustainability. Draws on approaches from comparative politics, public policy, and international relations.
POLS	3209	Sustainable Energy in the 21st Century	Political, socioeconomic, environmental, science and engineering challenges of energy sources; comparison of feasibility and sustainability of energy policies around the world.
POLS	3212	Comparative Perspectives on Human Rights	Cultural difference and human rights in areas of legal equality, women's rights, political violence, criminal justice, religious pluralism, global security, and race relations.

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POLS	3216	Women in Political Development	How women and gender circumscribe political life and generate relationships of inequality and justice on a global scale. Topics may include conflict and security, development, human rights and legal systems, labor and migration, nation building, political economy, and transnational justice.
POLS	3218	Indigenous Peoples' Politics and Rights	Governments, political behavior, human rights and constitutional rights of indigenous peoples of North America and Latin America. Impact of international law and globalization on indigenous peoples.
POLS	3239	Politics of the Environment and Development	Politics of the environment and development with a focus on environmental issues in developing countries.
POLS	3412	Global Environmental Politics	Politics of how humans and natural systems interact. Managing the global environment, regulating resource commons, and coordinating to solve environmental problems.
POLS	3430	Evaluating Human Rights Practices of Countries	Examination of the ways in which governments, businesses, NGOs, IGOs, and scholars assess which human rights are being respected by governments of the world. Hands-on experience in rating the level of government respect for human rights in countries around the world.
POLS	3672	Women and Politics	An introduction to feminist thought, the study of women as political actors, the feminist movement and several public policy issues affecting women.
POLS	3837	Civil Rights and Legal Mobilization	Strategies used by interest groups to achieve civil rights recognition through the legal system and legislative process.
PSYC	Psychological Sciences		
PSYC	3104	Environmental Psychology	Reciprocal relationships between built and natural environments and human behavior.
PUBH	Public Health		
PUBH	1001	Introduction to Public Health	Basic foundation in public health principles and practices.
PUBH	3001	Introduction to Epidemiology	Provides overview of epidemiological concepts and methods for examining the distribution and causes
PP	Public Policy		
PP	3203	Environmental Policy and Institutions	Development of environmental policies and institutions and their effects on the motivations and the actions of individuals and groups with implications for questions of equity, justice, and sustainability. Draws on approaches from comparative politics, public policy, and international relations.
SOCI	Sociology		
SOCI	1001	Introduction to Sociology	Modern society and its social organization, institutions, communities, groups, and social roles: the socialization of individuals, family, gender, race and ethnicity, religion, social class, crime and deviance, population, cities, political economy, and social change.

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SOCI	1251	Social Problems	Major social problems, their sources in the organization of society, public policies for their alleviation, and questions of ethics and social justice: alcohol and drug abuse, physical and mental illness, sexual variances, poverty and inequality, ethnic and racial prejudice and discrimination, women and gender, the changing family, violence, crime and delinquency, the environment, urban problems, and <u>population planning and growth.</u>
SOCI	1501	Race, Class, and Gender	Race, class, and gender, as they structure identities, opportunities, and social outcomes
SOCI	2701	Sustainable Societies	Sociological perspectives on the concepts of sustainability, focusing on issues of climate change mitigation and adaptation, including questions of social transitions based on concepts of social justice, <u>biomimicry, permaculture, and the future of life on earth.</u>
SOCI	2705	Sociology of Food	Social factors shaping the industrial food system, as well as a social analysis of viable alternatives.
SOCI	2709W	Society and Climate Change	Sociological perspectives on the social, economic, political, and environmental causes and <u>consequences of anthropogenic global climate change.</u>
SOCI	3407	Energy, Environment, and Society	Sociological perspectives on energy production, distribution and consumption, environment and social <u>organization.</u>
SOCI	3701	The Developing World	Social and economic conditions in Asia, Africa, and Latin America and attempts to improve them.
SOCI	3821	Social Movements and Social Change	Revolutionary, reform, reactionary, religious, communal, and escapist movements.
SOCI	3831	Human Rights in the United States	Sociological analyses of human rights issues in the United States, including economic, racial, and gender justice; prisoner's rights and capital punishment; the role of the United States in international human rights agreements and treaties; and struggles on behalf of human rights.
SOCI	3837	Sociology of Global Human RIghts	Comparative approach to the study of human rights in the United States and elsewhere around the <u>world from a sociological perspective.</u>
SOCI	3971	Population	Size, growth, composition and distribution of population; social factors in population change.
SPSS	Sustainable Plant and Soil Systems		
SPSS	1110	Fundamentals of Horticulture	Science and practice of horticultural plant propagation and culture. Basic concepts of plant structure, growth and function. Integrated pest management. Impact of new technology. Horticulture and the <u>environment.</u>
SPSS	1120	Introduction to Plant Science	Basic concepts of plant anatomy and physiology in production of agricultural and horticultural crops. Developmental stages of crop plants from seed through vegetative growth and flowering to harvest. Included topics are mineral nutrition, water relations, photosynthesis, respiration, reproduction, tropisms, climate effects, and breeding and development of improved crop plants. Relationships between the physiology of plants and crop production practices.

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SPSS	1125	Insects, Food and Culture	Introduction to the fascinating world of insects and their ubiquitous interactions with people. Role of insects in food and fiber production; insects as food; impact of insects on human health, commerce and history; and insects as inspiration sources for art, music, film and literature around the world.
SPSS	1150	Agricultural Technology and Society	Development of agricultural systems and technologies and their influence on societies. Topics include plant and animal domestication, food and industrial crops and centers of production, environmental issues, and agricultural ethics.
SPSS	2100	Environmental Sustainability of Food Production in Developed Countries	Foundations of modern systems that produce the majority of food calories consumed in North America and other developed countries. Benefits and environmental risks associated with modern food production systems. Alternative food production systems and sustainability. Local food production and food security. Food production and climate change.
SPSS	2110W	Sustainable Plant Pest Management Communication	Communication of the impacts, economic importance, identification, and sustainable management of new and emerging plant pests, such as insects, mites, weeds/invasive plants, and diseases of food and non-food (ornamental) crops, in agricultural and landscape settings. Connections with UConn Extension and real-world pest occurrences will be incorporated.
SPSS	2120	Environmental Soil Science	Introduction to the physical, chemical and biological properties of soils. The relationship between soils and the growth of higher plants. Impact of soils on environmental quality.
SPSS	2500	Principles and Concepts of Agroecology	Application of ecological processes to modern agricultural production practices. Crops and their environment. Soil quality and maintenance of soil productivity. Sustainability of agroecosystems.
SPSS	3094	Seminar in U.S. Food Production Systems	Discussion of the complex issues surrounding the economic, agronomic, and environmental performance of food production systems in the United States.
SPSS	3150	Advanced Turfgrass Management	Effects of environmental stresses and turfgrass management practices on growth, development, and physiology of turfgrasses. Implementation of proper management practices to promote optimal turfgrass health under stress conditions.
SPSS	3230	Biotechnology - Science, Application, Impact, Perception	Scientific, legal, and ethical aspects of Biotechnology application in agriculture, health medicine, forensics, and the environment. Designed for students with diverse departmental affiliations.
SPSS	3240	Plant Biotechnology	Principles of recombinant DNA and plant gene transfer technologies. Applications of plant biotechnology in agriculture, horticulture, forestry, human/animal health care, and pharmaceutical industry. Social and environmental impacts of plant biotechnology.
SPSS	3245	Plant Breeding and Biotechnology	Principles and applications, economic, social and environmental impacts, advantages, potentials and limitations of major traditional and modern plant breeding technologies including crossing/hybridization, mutagenesis, genetic engineering and genome editing.

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SPSS	3550	Urban Plant Systems Construction and Maintenance	Structural and functional components of plant systems. Provision of ecosystem services. Overviews of a wide spectrum of planted systems including streetscaping, green roofs and green walls, rain gardens and bioretention, and phytoremediation systems. Techniques of soil modification. Plant selection. Establishment and maintenance of woody and herbaceous plants: planting, preservation, pruning, <u>mulching, irrigation, and fertilization.</u>
SPSS	3610	Organic and Sustainable Vegetable Production	Fundamentals of soil management and crop plant husbandry as applied to vegetable production. Horticultural principles of crop growth. Focus is on sustainable and organic practices. Field laboratory will consist of required trips (some outside designated laboratory time) during the early part of the <u>semester to organic and conventional farms.</u>
URBN	Urban and Community Studies		
URBN	1300	Exploring Your Community	Various aspects of urban and community life emphasizing the interplay of social justice, diversity, individual and social well-being. Theories, concepts, and methods in community studies. May contain a service learning component.
WGSS	Women's, Gender, and Sexuality Studies		
WGSS	2105	Gender and Science	The historical, sociological, economic, and political processes that shape the ways that gender, race, <u>class, sexuality and nation intersect with science, medicine and technology.</u>
WGSS	2124	Gender and Globalization	Construction and reproduction of gender inequality and the gendered nature of global structures and processes. Key topics include women's rights as human rights; women's work; gender, development, and the global economy; migration; religious fundamentalism; reproduction, health, and HIV/AIDS; education; violence against women; and gender, war, and peace advocacy.
WGSS	3052	Women and Politics	An introduction to feminist thought, the study of women as political actors, the feminist movement and <u>several public policy issues affecting women.</u>
WGSS	3216	Women in Political Development	How women and gender circumscribe political life and generate relationships of inequality and justice on a global scale. Topics may include conflict and security, development, human rights and legal systems, labor and migration, nation building, political economy, and transnational justice.
WGSS	3269	Women's Movements	Examination of women's movements as related to intersections of gender, race, class, nationality, and sexuality, and to topics such as democracy, economic justice, the environment, health, and sexual <u>freedom.</u>
WGSS	3350	Anthropological Perspectives on Women	Major conceptual and historical problems in the study of gender in anthropology. Women's roles in different historical and contemporary settings and new understandings of family, kinship, power, and <u>cultural ideologies.</u>
WGSS	3445	Economic Foundations of Gender Inequality	Economic approaches to gender inequality in political representation, economic opportunities, access to education, and health.

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Undergraduate Courses Related to Sustainability			
Department	Course Number	Course Name	Description
AFRA	Africana Studies		
AFRA	3622	History of Gender and Sexuality in Latin America and the Caribbean	Topics may include: empire and colonialism/anti-colonialism; slavery, science, and the state; cultural practices and institutions; feminisms and masculinities; law and public policies; immigration; forms of labor and political mobilization; sex and reproduction; and human rights from historical perspective.
AFRA	3647	Black Leadership and Civil Rights	Black leadership, emphasizing the principles, goals, and strategies used by African-American men and women to secure basic citizenship rights during the civil rights era.
AFRA	3652	Black Feminist Politics	An introduction to major philosophical and theoretical debates at the core of black feminist thought, emphasizing the ways in which interlocking systems of oppression uphold and sustain each other.
AFRA	3825	African Americans and Social Protest	Social and economic-justice movements, from the beginning of the Civil Rights movement to the present.
ARE	Agricultural and Resource Economics		
ARE	2150	Intermediate Applied and Resource Economics	Applications of intermediate level microeconomic theory to problems and policy issues in agriculture, natural resources, and the environment. Topics include supply, demand, market equilibrium, consumer and producer behavior, perfect competition, and welfare economics. Emphasis will be placed on using the theory in computational exercises.
ARE	2210	Essentials of Accounting and Business	An analysis of basic business principles, fundamentals and concepts for agribusiness entrepreneurs.
ARE	3221	Business Strategies and Policy in Food Industries	Market structure and business strategies of firms, including pricing, advertising, entry, and new products. Analysis of mergers and other antitrust issues from a public as well as firm perspective. Case studies of actual events.
ARE	3222	Marketing and Consumer Behavior	Principles of marketing and determinants of consumer choices. Particular attention to demographic economic factors and to changing concerns regarding health and food safety.
ARE	3225	Price Analysis and Future Trading	Principles and applications of market price determination, with special emphasis on the use of futures markets for profit and price risk management. Includes food and energy case studies, internet applications, and a futures simulation exercise.
ARE	4217	Business Finance in Food and Resource Industries	Analysis of financial statements, credit, risk and investment decision-making.
AGNR	Agriculture and Natural Resources		
AGNR	1089	Introduction to Research in Agricultural and Natural Resources	Supervised student involvement with faculty projects to introduce students to current areas of research in their field of interest.

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AH	Allied Health		
AH	1030	Interdisciplinary Approach to Obesity Prevention	Explores the biology of obesity including genetic predispositions and behaviors that increase obesity risk (dietary, physical activity, social, psychological), the obesigenic environment, including how communities are physically built, as well as the economic relationship to obesity risk, and policy and ethical implications for obesity prevention. Multi-level obesity prevention approaches that involve the individual, family, organization, community and policy.
AH	3021	Environment, Genetics and Cancer	Basic principles in tumor biology will be presented including the biochemical basis of cell transformation, proliferation, and metastasis. Molecular mechanisms by which environmental chemicals interact with DNA and other cellular components will be discussed. The role of proto-oncogenes, tumor suppressor genes, and their products will be covered. Biological markers of cancer risk and exposure will be included.
AH	3275	HAZWOPER	Provides individuals the necessary knowledge and training to meet the criteria for certification recognized by the Occupational Safety and Health Administration (OSHA) in work activities related to hazardous waste sites and clean up operations involving hazardous substances. Mandatory off-site field exercise required.
AH	3570	Health and Safety Management in the Workplace	Knowledge and skills necessary to develop a sustainable occupational health and safety management program in the workplace toward the goal of preventing illness and injury, and property damage.
AH	4221W	Trends in Environmental and Occupational Safety and Health	Impact of issues in the workplace in promoting prevention of injuries and illness to workers, and protection of property and the environment.
AH	4243	Current Issues in Health	Individual, community and institutional health care needs and issues from a bio-medical and socio-cultural point of view. Health and its relationship to genetics, poverty, ethnicity, life-cycle events, ethics, etc.
AH	4503	Poverty and Public Health	Social determinants of health and poverty. Health impact assessments. Improving the social determinants of health and poverty, including countries in conflict.
ASLN	American Sign Language		
ASLN	3254	Women and Gender in the Deaf World	The roles of women inside and outside the Deaf world. How language and cultural barriers perpetuate the roles defined for and by d/Deaf women within Deaf and hearing societies.
AMST	American Studies		
AMST	1700	Honors Core: American Landscapes	Real and imagined landscapes in the Americas as seen through the history of the land and its uses and through changing representations of those landscapes in art, literature, science, and popular culture.
ANSC	Animal Science		
ANSC	1001	Introduction to Animal Science	The biological, physical, and social factors that influence animal production and utilization.
ANSC	1645	The Science of Food	An introductory level course for students interested in the application of science to food. Nutritional and functional attributes of various food constituents are discussed. Issues concerning food processing and food safety are covered.

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ANSC	3318	Probiotics and Prebiotics	Biology, uses, effectiveness and safety of probiotics and prebiotics. Molecular mechanisms underlying the health benefits attributed to the consumption of pre- and probiotics. Application of pre- and probiotics to promote human and animal health, including safety and regulation.
ANSC	3343	Animal Food Products	A study of the food products derived from animal agriculture, including dairy, meat, poultry and fish. Emphasis will be placed on inspection, grading, processing, biochemistry, nutritive value and food safety concerns of these products.
ANSC	3641	Animal Food Products: Dairy Technology	Production and processing of milk and milk-products from a food science perspective including chemical, physical and microbiological components. Technological aspects of the transformation of milk into various food products. Public health regulations, good manufacturing practices, cleaning and sanitizing procedures. Unit operations in dairy food manufacturing, packaging, labeling and quality control procedures.
ANSC	3663	Dairy Management Decision-making	Participation in all phases of dairy herd management including decision-making activities, with particular emphasis on impact of decisions on financial health and stability. Course requires participation beyond specific semester calendars.
ANSC	4341	Food Microbiology and Safety	Current topics in food safety will be discussed, with special emphasis on microbial and chemical contamination of food. Specific topics including the safety of natural versus synthetic chemicals, food additives, irradiation and other practices, basic microbiology and toxicology, current regulatory practices and risk assessment will also be included. The Hazard Analysis Critical Control Points (HACCP) approach to food safety will be discussed.
ANSC	4642	Food Microbiology Laboratory	An introductory laboratory course in sampling of foods for microbiological analysis, enumeration of microorganisms in foods, and isolation and identification of major foodborne pathogens from foods.
ANSC	4662W	Dairy Herd Management	Dairy farm management practices with emphasis on business and economic decision making. The effects of various programs in selection, nutrition, facilities, reproduction and herd health on overall business health will be evaluated. Each student will manage a computer simulated herd during the semester. Field trips are required.
ANTH	Anthropology		
ANTH	1000	Other People's Worlds	A survey of the development, contributions, and contemporary social problems of selected non-Euroamerican peoples and cultures.
ANTH	3002	Culture, Language, and Thought	Anthropological contributions to the study of language, culture, and their relationship. Topics include the Sapir-Whorf hypothesis and the application of cognitive anthropological methods and theory to the study of folk classification systems.
ANTH	3026	Peoples and Cultures of North America	A survey of representative Native American cultures as they existed prior to the twentieth century, together with a view of the changing life of modern Native Americans.

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ANTH	3030	Peoples of the Pacific Islands	Survey of the indigenous societies and cultures of the Pacific Islands, from the first settlement to the postcolonial period. Topics include prehistoric canoe voyaging, modes of subsistence, political forms, ritual and religion, ceremonial exchange, gender ideologies, European colonization, and modern indigenous nationalism. Ethnographic examples will be drawn from Polynesia, Melanesia, and <u>Micronesia</u> .
ANTH	3351	Sex and Gender	Cross-cultural and interdisciplinary analysis of biological sex, gender, sex roles, and sexuality.
ANTH	3512	African Prehistory	The African archaeological record from first artifacts to historic times. The stone age, the domestication of crops, the ways of life of early herding societies, the development of metal working, and the rise of early African kingdoms.
ANTH	3513	Near Eastern Prehistory	From the earliest hunter-gatherers to the rise of the state: the transition from food gathering to food production and the development of complex societies in the Near East.
ANTH	3514	European Prehistory	Interdisciplinary survey of the archaeological, biological, cultural, and behavioral evolution of prehistoric humans and their societies across Europe and portions of western Asia.
ANTH	3522	Ecological Anthropology Seminar	Interdisciplinary study of the ecology of humans, integrating ecological and anthropological theory with archaeological, historical, and contemporary case-studies.
ANTH	3523	The Origins of Agriculture	The origins and spread of agriculture worldwide. Economic, social, and ideological ramifications of the agricultural transition. Processes of plant and animal domestication.
ANTH	3703	Zooarchaeological Method and Theory	Method and theory of archaeological faunal analysis, including training in the identification of skeletal materials, the formation of the zooarchaeological record, and the interpretation of zooarchaeological data.
ANTH	3706	Archaeobotany	Method and theory of studying archaeological plant remains in the laboratory, including sampling, identification, and interpretation of data.
ANTH	3902	North American Prehistory	Prehistoric cultures of North America from the earliest traces to European contact, with emphasis on the region east of the Mississippi.
ARTH	3645	From Revolution to Reggae: Modern and Contemporary Caribbean Art	A survey of art and visual production in the Caribbean from the 1804 Haitian Revolution to the present.
AASI	Asian and Asian American Studies Institute		
AASI	3201	Introduction to Asian American Studies	A multidisciplinary introduction to major themes in Asian American Studies. Concepts of identity and community, migration and labor histories, Asians and the law, representations of Asians in visual and popular culture, gender issues, interracial and interethnic relations, and human rights.
AASI	3221	Sociological Perspectives on Asian American Women	An overview of social structures, inter-group relations, and women's rights, focusing on the experience of Asian American women.
AASI	3222	Asian Indian Women: Activism and Social Change in India and the US	How gender, class and ethnicity/race structure everyday lives of Asian Indian women in both India and the United States.

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BIOL			
Biology			
BIOL	1102	Foundations of Biology	Major biological principles with emphasis on their importance to humans and modern society; designed for non-science majors.
BIOL	1103	The Biology of Human Health and Disease	A laboratory course designed for non-science majors to introduce the concepts of biology and their application to the individual, society and humankind by focusing on health and disease issues. A fee of \$10 is charged for this course.
BIOL	1108	Principles of Biology	Ecology, evolution, genetics, and plant biology (BIOL 1108).
BIOL	1109	Topics in Modern Biology	Readings, lectures, seminars, films and field trips exploring current developments in biology and their social and scientific implications.
BIOL	1110	Introduction to Botany	Designed to provide a foundation for more advanced courses in biology and related sciences. Structure, physiology, reproduction, diversity, evolution, and ecology of plants as a basis for understanding the broader principles of biology. Surveys important groups of plants, fungi, and algae.
BIOL	3520W	Ethical Perspectives in Biological Research and Technology	Ethical and policy issues arising from advances in biological research and technology, including topics in ecology, molecular biology, and physiology.
BME			
Biomedical Medical Engineering			
BME	3700	Biomaterials	A lecture and laboratory course that introduces a series of implant materials including metals, ceramics, glass ceramics, polymers, and composites. These materials are compared with the natural materials, with consideration given to issues of mechanical properties, biocompatibility, degradation of materials by biological systems, and biological response to artificial materials. Particular attention is given to the materials for the total hip prosthesis, dental restoration, and implantable medical devices.
BUSN			
Business			
BUSN	1801	Contemporary Issues in the World of Business	The world of business has changed. No longer can we refer to the cliché “business as usual.” Today’s business world is a complex, challenging and exciting place. Each section of this course will capture some aspect of that challenge and excitement. Students will be exposed to undercurrents that challenge and perplex today’s managers and executives around the globe. Students should consult the scheduling booklet for specific topics offered.
BADM			
Business Administration			
BADM	1801	Contemporary Issues in the World of Business	The world of business has changed. No longer can we refer to the cliché “business as usual.” Today’s business world is a complex, challenging and exciting place. Each section of this course will capture some aspect of that challenge and excitement. Students will be exposed to undercurrents that challenge and perplex today’s managers and executives around the globe. Students should consult the scheduling booklet for specific topics offered.

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BADM	3252	Corporate Social Impact and Responsibility	Social impact and human rights implications related to global operations of multinational corporations; regulatory environment and competitive contexts that govern responsible business conduct on a global scale, how to navigate regulatory mandates and design social responsibility strategies to increase a firm's reputation, reduce costs, and improve its competitive positioning while <u>respecting human rights principles.</u>
BADM	3254	Business Solutions to Societal Challenges	Market-based solutions to social and human rights challenges; how companies create value both for society and business, including role of for-profit businesses as agents for positive social impact in changing legal, regulatory, policy, and market environments. Regulatory and business strategies for long-term economic viability, sustainability, and human rights. Social innovation, statutory benefit corporations, corporate social certifications, social investment, shared value, strategic philanthropy, <u>and business opportunities serving emerging markets.</u>
BADM	3274	Real Estate Law	Examination of the legal and ethical aspects of real estate interests, transactions, zoning, and land use. A study is made of present and future land interests, non-possessory interests, fixtures, liens, co-ownership of real estate, residential and commercial landlord-tenant relationships, multi-unit real estate interests, real estate brokerage and fair housing, transfer and financing methods, environmental <u>law, and taxation of real estate transactions.</u>
BADM	3681	Legal Aspects of Entrepreneurship	Focuses on legal issues affecting new and growing businesses. Topics include choosing a legal form for the business, raising money and securities regulation, mergers, acquisitions, and liquidation. Also covers protecting intellectual property, employment, consumer protection, sales contracts and liability. In addition legal aspects of distribution, e-commerce, establishing a presence in a foreign market and <u>environmental law are studied.</u>
BADM	3720	The Legal and Ethical Environment of Business	The meaning of law and the structure of the legal and regulatory system are studied with a view toward the impact of law upon the operation of global business. Key philosophies of ethics and social responsibility are examined through the lens of stakeholder analysis and other analytical tools. Examination of the institutional foundations of law including court systems, court procedures, and constitutional law. The application of law to shape the legal environment of business through government regulation and legal liability is examined through exploration of tort and product liability, worker protection, and business organization law.
BLAW	Business Law		
BLAW	3252	Corporate Social Impact and Responsibility	Social impact and human rights implications related to global operations of multinational corporations; regulatory environment and competitive contexts that govern responsible business conduct on a global scale, how to navigate regulatory mandates and design social responsibility strategies to increase a firm's reputation, reduce costs, and improve its competitive positioning while <u>respecting human rights principles.</u>

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BLAW	3254	Business Solutions to Societal Challenges	Market-based solutions to social and human rights challenges; how companies create value both for society and business, including role of for-profit businesses as agents for positive social impact in changing legal, regulatory, policy, and market environments. Regulatory and business strategies for long-term economic viability, sustainability, and human rights. Social innovation, statutory benefit corporations, corporate social certifications, social investment, shared value, strategic philanthropy, and business opportunities serving emerging markets.
CHEG	Chemical Engineering		
CHEG	1200	Introduction to Food Science and Engineering	Introduction to the chemistry and engineering concepts related to the commercial and personal preparation of various foodstuffs, including meats, dairy, baking, and beverages. In-class demonstration and small laboratory projects.
CHEM	Chemistry		
CHEM	1137Q	Enhanced General Chemistry I	Atoms, molecules, ions, chemical bonding. Gases, liquids, solids, solutions, equilibrium, thermodynamics, nuclear chemistry, kinetics and organic chemistry. May include modern materials, environmental chemistry, metallurgy, and biochemistry.
CHEM	1138Q	Enhanced General Chemistry II	Atoms, molecules, ions, chemical bonding. Gases, liquids, solids, solutions, equilibrium, thermodynamics, nuclear chemistry, kinetics and organic chemistry. May include modern materials, environmental chemistry, metallurgy, and biochemistry.
CHEM	1147Q	Honors General Chemistry I	Atomic and molecular theory and the properties of gases, liquids, solids, and solutions. Topics which may be covered in depth are the nature of the chemical bond, chemical equilibria, thermodynamics, electrochemistry and nuclear chemistry. The laboratory work is primarily quantitative in nature. Considerable personal initiative will be demanded of students in carrying out laboratory assignments. A fee of \$20 is charged for this course for the first semester and \$20 for the second semester.
CHEM	1148Q	Honors General Chemistry II	Atomic and molecular theory and the properties of gases, liquids, solids, and solutions. Topics which may be covered in depth are the nature of the chemical bond, chemical equilibria, thermodynamics, electrochemistry and nuclear chemistry. The laboratory work is primarily quantitative in nature. Considerable personal initiative will be demanded of students in carrying out laboratory assignments. A fee of \$20 is charged for this course for the first semester and \$20 for the second semester.
CHIN	Chinese		
CHIN	1122	Modern Chinese Culture	Introduction to modern Chinese culture from the fall of the Qing Dynasty to the present period. Survey of institutions, philosophy, and social customs seen through literature and films.
CE	Civil Engineering		
CE	2410	Introduction to Geospatial Analysis and Measurement	Elementary plane surveying, geospatial coordinate systems, error and accuracy analysis, introduction to geographic information systems, theory and uses of global positioning systems, introduction to land-surface remote sensing in the context of civil and environmental engineering.

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CE	2500	Introduction to Geographic Information Systems	Fundamental principles of geographic information systems (GIS). Topics include history of the field, components of a GIS, the nature and characteristics of spatial data, methods of data capture and sources of data, database models, review of typical GIS operations and applications. Laboratory exercises provide experience with common computer-based systems.
CE	2710	Transportation Engineering and Planning	Design of transportation facilities. Traffic flow and capacity analysis. Travel demand analysis and planning methods.
CE	3120	Fluid Mechanics	Statics of fluids, analysis of fluid flow using principles of mass, momentum and energy conservation from a differential and control volume approach. Dimensional analysis. Application to pipe flow and open channel flow. Laboratory activities and written lab reports.
CE	3251	Civil and Environmental Engineering Applications of Probability and Statistics	Multiple regression. Analysis of variance. Student project applying probability or statistics in a civil or environmental engineering context.
CE	3510	Soil Mechanics	Fundamentals of soil behavior and its use as a construction material. Effective stress principle, seepage and flow nets, consolidation, shear strength, limit equilibrium analysis.
CE	4210	Operations Research in Civil and Environmental Engineering	Critical path method for scheduling and managing engineering project tasks. Resource allocation subject to constraints. Facility location problems. One and two-phase simplex method for linear programming. Optimization of non-linear problems. Introduction to integer programming and network flow problems.
CE	4410	Computer Aided Site Design	Roadway and street network design and site development using computer software, including grading and earthwork, runoff and drainage structures.
CE	4510	Foundation Design	Application of soil properties to design of foundations, retaining structures, excavation drainage, shallow footings, deep foundations, specifications, subsurface exploration.
CE	4530	Geoenvironmental Engineering	Application of geological principles to engineering and environmental problems. Topics include site investigations, geologic hazards, slope processes, earthquakes, subsidence, and the engineering properties of geologic materials. Course intended for both geoscience and engineering majors.
CE	4541	Advanced Soil Mechanics	Introduction of soil as a multi-phase material; stress and strain analysis in soil; soil compression and consolidation; shear strength of sand and clay; critical state soil mechanics; advanced topics in complex constitutive relationships; introduction to fracture mechanics.
CE	4710	Case Studies in Transportation Engineering	Analysis of case studies in transportation and urban planning and design. Application of transportation engineering and planning skills. Oral and written group reports, group discussions, individual written papers.
CE	4720	Street and Highway Design	History of street and highway design; land-use context, street design data collection and analysis, speed, safety and street network characterization; pedestrian and bikers in design, cross-section and alignment design.

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CE	4730	Transportation Planning	Transportation economics, urban transportation planning process, evaluation of transportation improvements, transportation systems management.
CE	4740	Traffic Engineering Characteristics	Relationships among traffic flow characteristics; microscopic and macroscopic representations of traffic flow; capacity and level of service of highways; traffic stream models; shock wave analysis.
CE	4750	Pavement Design	Analysis and design of flexible and rigid pavements; testing and characterization of paving materials.
CE	4810	Engineering Hydrology	Hydrologic cycle: precipitation, interception, depression storage, infiltration, evapotranspiration, overland flow, snow hydrology, groundwater and streamflow processes. Stream hydrographs and flood routing. Hydrologic modeling and design.
COMM	Communication		
COMM	3450	Gender and Communication	Differences in male/female communication, and an examination of cultural assumptions regarding gender in the communication process. Critically analyze the theory, politics and practice of communication and gender.
COMM	4222	People of Color and Interpersonal Communication	Impact of race, ethnicity, and culture on interpersonal interactions. Surveys key theories and empirical works of past and current race relations in the U.S., negotiation of identity, and ways identity is communicated in various personal relationships.
COMM	4320	Media and Diverse Audiences	Issues of race, ethnicity, culture, class, gender, and sexuality in mainstream and alternative media. Analysis of how diverse groups use the media, are represented in, and interpret media content.
COMM	4422	Protest Communication	Protest movement – past and current – in light of principles, models, and theories of communication.
COMM	4430	International Communication and Conflict	Communication in international conflicts and crises. Negotiation, mediation, and transformational approaches; globalization and the media; communication in war and peace; cultural, social, political, and economic effects.
COMM	4450W	Global Communication	International communication patterns; globalization of media industries; new technologies; communication in war and peace; political, economic, social and cultural effects.
COMM	4630	Communication Technology and Social Change	Examination of new communication technologies and their influence on social change. Provides a foundation for students with professional as well as academic interests in communication technology.
COMM	4700	Health Communication	Overview of health communication, including health behavior change interventions, emergency communication, risk assessment, media influences, provider-patient communication, socialization and identity, stereotyping, social support, diverse populations, and new communication technologies.
COMM	4802	Cultural and Global Diversity in Advertising	Advertising and marketing strategies that incorporate cultural diversity and global marketing considerations.

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CLCS Comparative Literary and Cultural Studies			
CLCS	2201	Intercultural Competency towards Global Perspectives	Introduction to the interdisciplinary and international field of intercultural communication in cultural studies, including culturally determined communicative behaviors, identity, semiotics, multi-disciplinary theories of culture, and stereotypes.
CLCS	3211	Indigenous Film World Wide	A survey of films by and about Indigenous, American Indian, First Nations, Native, and Aboriginal people. Course will focus on contemporary films and artists.
CSE Computer Science and Engineering			
CSE	3000	Contemporary Issues in Computer Science and Engineering	The global and societal impact of computer science and engineering decisions, professional and ethical responsibility.
CSE	3002	Social, Ethical and Professional Issues in Computer Science and Engineering	Study of areas in which computer science interacts with ethical issues, and issues of public policy. Topics of professional growth, development, and responsibility. Practice in the analysis of complex issues brought about by modern technology.
CSE	3810	Computational Genomics	Computational methods for genomic data analysis. Topics covered include statistical modeling of biological sequences, probabilistic models of DNA and protein evolution, expectation maximization and Gibbs sampling algorithms, genomic sequence variation, and applications in genomics and genetic epidemiology.
DGS Diagnostic Genetic Sciences			
DGS	4246	Contemporary Issues in Human Genetics	Historical and contemporary issues relevant to human genetics, including the layperson's understanding of genetic testing and diagnosis; and the ethical, legal, and social issues associated with them.
EEb Ecology and Evolutionary Biology			
EEB	2202	Evolution and Human Diversity	The biological bases of human diversity from genetic and evolutionary perspectives. Topics include the genetic basis for human variation and race; adaptations of human populations; the role of genes and environments in producing human variability; cultural evolution; origin and spread of "modern" humans.
EEB	3240	Biology of Bryophytes and Lichens	Diversity, evolution, ecology, development and taxonomy of the bryophytes (mosses, liverworts and hornworts) and lichen-forming fungi.
EEB	3250	Biology of Algae	Laboratory and field-oriented study of major groups of algae, emphasizing structure, function, evolution, systematics, and ecology.
EEB	3264	Field Parasitology	Introduction to local parasites, their evolution, identification, and common methods used for collection and preservation. Adaptations and evolutionary trends seen in various parasitic groups and how they affect their hosts.
EEB	4200	Biology of Fishes	An introduction to the biology of fishes, with an emphasis on adaptation and evolutionary diversification. Topics include the evolution of major groups, morphology, physiology, behavior, and population and community ecology. Lectures, critical discussions of current journal articles, student presentations, and exercises in the field and laboratory.
EEB	4250	General Entomology	The biology of insects: anatomy, physiology, ecology, behavior, development, evolution, and diversity.

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EEB	4252	Field Entomology	Collection, identification, and ecology of insects.
EEB	4260	Ornithology	Adaptations, habits, and importance of birds.
EEB	4261	Ornithology Laboratory	Methods of field study and identification of birds; functional morphology, preparation of study skins and specimens. Field trips, including at least one required day-long weekend trip.
EEB	4262	Field Methods in Ornithology	Design of bird population surveys, census methods, behavioral studies of wild birds, data collection and reporting, bird identification skills. Field trips required.
EEB	4272	The Summer Flora	Identification of Connecticut's native and exotic plants; lecture, laboratory and field study.
EEB	4275	Invertebrate Zoology	Body organization, functional morphology and evolution compared among major invertebrate phyla. Field trips required.
EEB	4276	Plant Structural Diversity	Evolution, development, and functional consequences of structural variation in plants.
EEB	4276W	Plant Anatomy	Anatomy and ecology of plants.
ECON	Economics		
ECON	1201	Principles of Microeconomics	How the invisible hand of the market functions through the economic decisions of firms and individuals. How prices, wages and profits are determined, resources are allocated and income is distributed. Topical subjects (e.g., energy policy and health care).
ECON	1202	Principles of Macroeconomics	The organization and function of the economic system as a total unit. Economic decisions, institutions, and policies that determine levels and rates of growth of production, employment, and prices. Topical subjects (e.g., government budget deficits and current interest-rate policy).
ECON	2101	Economic History of Europe	Economic evolution of Europe from feudal times to the present, emphasizing the modern period: the rise of commerce, industry, and banking; the growth of population and the labor force; the changing position of agriculture; business fluctuations; and forms of economic organization.
ECON	2102	Economic History of the United States	Issues in American economic development, including the political economy of the Constitution, the economics of slavery, the rise of modern corporations and the causes of the Great Depression.
ECON	2126	Philosophy and Economics	An examination of the normative assumptions and implications of modern economics (for example, the connections between Classical Utilitarianism and Welfare Economics). Attention to methodological controversies in contemporary economic theory.
ECON	2201	Intermediate Microeconomic Theory	Intermediate microeconomic theory, covering demand and supply, exchange and production, pricing, and welfare economics.
ECON	2202	Intermediate Macroeconomic Theory	Intermediate macroeconomic theory, covering national income accounting; the determination of aggregate output, employment and price levels; elements of business cycles and economic growth.
ECON	2411	Money and Banking	The nature of money, the origins of monetary standards and systems, the development and operation of commercial banking, the Federal Reserve System, and international monetary agencies.

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ECON	2431	Economics of Taxation and Government Spending	Critical issues in taxation and government expenditures. Emphasis on institutions and public policy. Topics include: rationale for and effects of progressive taxation, reform of the tax system, Social Security and Medicare, welfare reform, defense, and fiscal federalism.
ECON	2439	Urban Development and Policy	Education, housing, anti-poverty, economic development, and transportation policies for American cities and metropolitan areas. Emphasis on different roles of policies that act upon people versus places. Analysis tools for regional economic development such as input-output matrices and cost-benefit analysis.
ECON	2440	Economics of the Global Economy	Analysis of economic integration in the global economy with emphasis on the position of the USA. Several specialist areas of economic thought brought to bear – economic history, economics of the multinational enterprise, international trade, international finance, labor economics, environmental economics, and economics of the internet. Institutional historical, and political economy approaches are emphasized.
ECON	2444	Women and Minorities in the Labor Market	Issues and problems confronting women and minorities in the workplace, using economic theory, institutional analysis, and empirical investigation. Historical background, allocation of time, discrimination, earnings determination, occupational structure, labor unions, and public policy.
ECON	2467	Economics of the Oceans	Economies of industries that use and manage ocean resources. Applications of industrial organization, law and economics, natural resource theory, and environmental economics.
ECON	2474	Economic Development in Latin America and the Caribbean	Survey of the economic history of Latin America and the Caribbean. Analysis of present-day development issues in the region, including economic growth, poverty, education, and health
ECON	2477	Transitional Economics of Russia and Eastern Europe	Economic transition of these formerly socialist economies into capitalist, market economies. Comparison of centrally planned and market economies. Problems of macroeconomic imbalance, economic distortions, shortages and repressed inflation. Means and timing of price liberalization, privatization, restructuring, currency convertibility, and building legal and financial institutions.
ECON	3208	Game Theory	Analysis of economic situations as games. Nash equilibrium, backward induction, auctions, commitment, credibility, and asymmetric information.
ECON	3421	International Trade	Economic basis of international trade, trade policies, and international economic organizations.
ECON	3422	International Finance	Payments and financing of international trade: foreign exchange markets, the balance of payments, capital flows, and international monetary arrangements.
ECON	3431	Public Finance	Government expenditures and tax policies: theories of public choice, size and mix of government budgets, alternative tax systems, and tax reform.
ECON	3438	Contemporary Problems in Economics	Current issues of government economic policy, primarily microeconomic: energy, income maintenance, labor markets for minorities and women, government regulation, health care, and others.

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ECON	3439	Urban and Regional Economics	Economic problems of cities and regions: urban markets for land, labor, and housing; location decisions of businesses and households; metropolitan transportation problems; urban/suburban fiscal relations; urban and regional environmental quality; and the economics of crime.
ECON	3441	Theory of Labor Markets	Theoretical analysis of labor markets: labor supply and demand; wage differentials; human capital; and the inflation-unemployment tradeoff.
ECON	3473	Economic Development	Economics of problems facing developing nations: theories of development, and strategies and policies to promote economic development.
ECON	3479	Economic Growth	Causes and consequences of economic growth examined through theory, data, and economic history. Interactions between economic growth and population growth, technology, education, health and life expectancy, and social institutions. Public policies to promote growth.
EDCI	Education Curriculum and Instruction		
EDCI	3100	Multicultural Education, Equity and Social Justice	Introduction to multicultural education. Includes the nature and purposes of schooling, the relationship between diversity, schooling and society, and the concepts and practices of multicultural education and equity pedagogy.
EDCI	3210	Introduction to Secondary Methods and Clinic: Agricultural Teaching	Pedagogical techniques in middle and high school agriculture classroom settings, including setting student learning goals, planning and engaging students in activity that is authentic to the discipline of agriculture, with an increased focus on facilitating productive small group and whole class task-based discourse in agriculture classrooms.
EDLR	Educational Leadership		
EDLR	2001	Contemporary Social Issues in Sport	Socio-cultural, economic, political, and other related issues in sport. Sport as a social institution, the impact of sport in American culture, and the impact of American culture on sport. Sport at the youth, intercollegiate, professional, and international levels; how sport at these levels is experienced differently by individuals, communities, organizations, and society. Issues in sport relative to gender, race (ethnicity), differing physical and intellectual ability, sexual identity, and gender identity.
EPSY	Educational Psychology		
EPSY	1450W	Mind, Body, Health	The role of the mind and its effects on subjective well-being (e.g., happiness, stress, depression, anxiety) and the physical body. The past history and current literature supporting the mind-body connection, assessment, and intervention. Implications for understanding mind body health relative to quality of life.
ECE	Electrical and Computer Engineering		
ECE	3211	Power Electronics	Power converters for power processing, regulation, and control as applied to computer and telecommunication systems, transportation systems, industrial drives, and renewable power conversion systems. Power semiconductor device characteristics, transformers, and dc/dc converters including design projects.

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ECE	3231	Introduction to Modern Power Systems	Fundamentals of power system planning, operation, and management. Power generation, transmission and distribution. Sustainable energy sources such as photovoltaics, solar-thermal power, wind farms, and their grid integration. Modern power system monitoring/control, fault analysis, and transient stability analysis using computer tools. Use of power system simulation tool e.g. PSS/E for power system planning.
ECE	3243	Introduction to Nanotechnology	Basic concepts of nanoscience; new physical properties at these scales (~1-100 nm); different approaches to fabricate, image, characterize and manipulate nanostructures and nanodevices; current and potential applications in areas as diverse as electronics, health and energy; societal impacts of nanotechnology.
ECE	4211	Semiconductor Devices and Nanostructures	Principles and applications of contemporary solid state devices such as light-emitting diodes, injection lasers, solar cells, p-n-p-n diodes, SCRs and TRIACs, transistors, MESFETs and MODFETs, and fundamentals of integrated circuits. Impact of nanostructures on devices.
ECE	4225	Fundamentals of Electron Device Design and Characterization	Design of micro/nano electronic devices using state-of-the-art computer simulation tools, experimental electrical characterization of semiconductor devices and introduction to modern electronic devices such as high-performance MOSFETs, TFTs, solar cells, non-volatile memories, CCDs, and thermoelectric power generators.
ENGR	Engineering		
ENGR	2243	Nanoscience and Society	Introductory, interdisciplinary honors core course on nanoscale science and society. Introduction to the fundamentals of nanoscience and to the broader societal implications of implementing nanotechnology locally and globally. Nanoscience fundamentals (basic concepts and results of quantum physics), fabrication (how to make nanoscale structures, imaging and analysis, applications (electronics, biomedical, environment, new products), society and ethics in nanoscience and technology. Relevant case studies.
ENGL	English		
ENGL	1201	Introduction to American Studies	What is an American? A multi-disciplinary inquiry into the diversity of American societies and cultures.
ENGL	3210	Native American Literature	Examination of the literatures of pre-contact, post-contact, and contemporary indigenous American cultures.
ENGL	3240	American Nature Writing	Study of writings, from the colonial era to the modern, reflecting diverse ways of imagining humanity's relation to the natural environment.
ENGL	3605	Latina/o Literature	Extensive readings in Latina/o literature from the late nineteenth century to the present.
ENGL	3607	Studies in Latina/o Literature	Advanced study of a theme, form, author, or movement in contemporary Latina/o literature.
ENGL	3609	Women's Literature	Works written by women from different countries and centuries.
ENGL	3611	Women's Literature 1900 to the Present	Modern and contemporary works written by women from different countries.
ENGL	3613	Introduction to LGBT Literature	An introduction to themes of sexual diversity in literature, related to lesbian, gay, bisexual, and transgender issues.

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ENGL	3619	Topics in Literature and Human Rights	Study of literature from various historical periods and nationalities concerned with defining, exploring, and critiquing the idea of universal human rights.
ENGL	3631	Literature, Culture, and Humanitarianism	Relationships between literature and culture and humanitarian movements, from the eighteenth century to the present.
ENGL	3651	Maritime Non-Fiction	Classics of the non-fictional genre as they apply to an understanding of the culture of the sea. Social, humanistic, intellectual and scientific perspectives are examined through analysis of works by writers such as Steinbeck, McPhee, and Sebastian Junger.
ENGL	3715	Nature Writing Workshop	For student writers of proved ability who wish training in techniques of nature writing. Emphasis on nonfiction or poetry.
ENGL	4613W	Advanced Study: Lesbian, Gay, Bisexual and Transgender Literature	Intensive study of particular topics in the literary expression of lesbian, gay, bisexual and transgender identity.
ENVE	Environmental Engineering		
ENVE	3220	Water Quality Engineering	Physical, chemical, and biological principles for the treatment of aqueous phase contaminants; reactor dynamics and kinetics. Design projects.
ENVE	3230	Introduction to Air Pollution	Gaseous pollutants and their properties; basic analytical techniques for air pollutants; particulate pollutants and their properties; equipment design for removal of gaseous and particulate materials; economic and environmental impact of air pollutants; federal and state regulations.
ENVE	3270	Environmental Microbiology	Content includes general microbiology, cell structure, cell growth kinetics, and genetics. In addition to the fundamental microbiological mechanisms, the application of microbial knowledge in natural environment and engineering systems (including water and wastewater treatment, soil and solid waste treatment) is also included. Will broaden the students' views of microbiological fundamentals and the applications to environmental systems.
ENVE	3530	Engineering and Environmental Geology	Application of geological principles to engineering and environmental problems. Topics include site investigations, geologic hazards, slope processes, earthquakes, subsidence, and the engineering properties of geologic materials. Course intended for both geoscience and engineering majors.
ENVE	4210	Environmental Engineering Chemistry	Quantitative variables governing chemical behavior in environmental systems. Thermodynamics and kinetics of acid/base, coordination, precipitation/dissolution, and redox reactions. Organic chemistry nomenclature.
ENVE	4530	Geoenvironmental Engineering	Principles of solid waste management; design of landfills and waste containment systems; compacted clay liners and slurry walls; overview of soil remediation techniques.
ENVE	4810	Engineering Hydrology	Hydrologic cycle: precipitation, interception, depression storage, infiltration, evapotranspiration, overland flow, snow hydrology, groundwater and streamflow processes. Stream hydrographs and flood routing. Hydrologic modeling and design.

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FINA		Fine Arts	
FINA	1001	Earthtones: Vocal Ensemble	World music vocal ensemble that brings to life the songs of specific cultures as a means to gain knowledge and understanding of communities, culture, spirituality and social justice.
FREN		French	
FREN	1169	Modernity in Crisis: France and the Francophone World from 1850 to Today	A cultural history of France and its colonial empire through political, social, artistic and literary revolutions and scandals. Topics include: Impressionism and the shock of the new, the Eiffel Tower scandal, Nazi occupation and the resistance, U.S. cultural imperialism, feminism, immigration and the crisis of national identity.
FREN	3211	Contemporary France	An historical and cultural overview of France in the 20th and 21st centuries: from D-Day to the European Union, from Communism to the Green Party, from ballad crooners to rap, from love stories to action films; the changing French nation through authentic documents, literary texts, and films.
GEOG		Geography	
GEOG	1700	World Regional Geography	Study of geographic relationships among natural and cultural environments that help to distinguish one part of the world from another. Analysis of selected countries as well as larger regions, with specific reference to the non-western world.
GEOG	2200	Introduction to Human Geography	Geographic perspectives on the relationships between human behavior/activities, and the physical, economic, and cultural environments.
GEOG	2300	Introduction to Physical Geography	The physical elements and processes of the lithosphere, hydrosphere and atmosphere are considered in relation to one another and to the distribution of the world's environments. Emphasis on the basic concepts and theories of physical geography.
GEOG	2310	National Parks Unearthed: Geology and Landscaped through Time	Geologic processes that shape the Earth's landscapes and interior through the study of National Parks, Monuments, and Seashores. Plate tectonics, climate and biotic change, natural hazards and resources, and environmental conservation.
GEOG	2410	New Digital Worlds of Geographic Information Science	The role of geospatial technologies in science and society; how these technologies address environmental issues; how further development of these technologies may impact lives in the future. Provides a strong conceptual and scientific foundation for further coursework and includes discussion of career opportunities in GIScience.
GEOG	2505	Applications of Geographic Information Systems	Applications of geographic information systems. Particular attention to land use planning and resource management.
GEOG	3200	Urban Geography	Analysis of the growth, distribution, and functional patterns within and among Western cities. Application of urban geographical concepts to city planning problems.
GEOG	3310	Fluvial Geomorphology	Physical forms and processes associated with rivers. Factors controlling open-channel flow, sediment transport, channel morphology, adjustments of rivers to environmental change, and human impacts.
GEOG	4110W	Regional Development and Policy	A study of theory and practice in regional development and planning. Emphasis on evaluation of regional problems and public policies designed to resolve them, with a primary focus on the United States.

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GEOG	4130	Geographical Analysis of Transportation	Investigation of the role of transportation in global trade, spatial organization, economic development, and the natural and built environment. Application of GIS to the study of transport systems and modeling.
GEOG	4200W	Geographical Analysis of Urban Social Issues	Analysis of socioeconomic patterns and issues within urban areas, with emphasis on applied geographical research. Policy implications are stressed.
GEOG	4210	Urban and Regional Planning	Urban and regional planning, with emphasis on (1) duties of local planners, especially land use planning, and (2) the political context for planners' work. Legal and political issues in communities and organizations.
GEOG	4220	Population Geography	Composition and growth of human populations. Concepts and techniques for analyzing populations in the context of significant population issues in the United States.
GEOG	4230	GIS and Remote Sensing for Geoscience Applications	Application of Geographic Information Systems, remote sensing, and image interpretation to problems in geoscience. Data acquisition, processing and analysis of Digital Elevation Models and satellite imagery. Geologic materials, processes, landforms and landscapes.
GEOG	4300	Advanced Physical Geography	Problems involving the application of physical processes in our changing environment.
GSCI	Geoscience		
GSCI	1055	Geoscience and the American Landscape	An Honors Core course. Foundation course in geology linked to the American Landscape through readings from American history and literature.
GSCI	2310	National Parks Unearthed: Geology and Landscaped through Time	Geologic processes that shape the Earth's landscapes and interior through the study of National Parks, Monuments, and Seashores. Plate tectonics, climate and biotic change, natural hazards and resources, and environmental conservation.
GSCI	2500	Earth System Science	Introduction to earth system science, geoscience research methods, and professional practice through lab work, field work in UConn Forest, visits to faculty labs, and culminating project.
GSCI	3010	Earth History and Global Change	Reconstruction of earth history from geological data. Processes and events responsible for the stratigraphic record, and techniques used to decipher it. An integrated survey of earth history. One or more weekend field trips may be required.
GSCI	3020	Earth Surface Processes	Processes responsible for the formation of the unconsolidated materials, landforms, and soils which constitute the Earth's surface. Introduction to surface-water and groundwater hydrology, geological hazards and the effects of climatic change. One or more weekend field trips may be required.
GSCI	3230	Beaches and Coasts	Introduction to the processes that form and modify coasts and beaches, including tectonic setting, sediment supply, coastal composition, energy regimes and sea level change; tools and techniques utilized in marine geologic mapping and reconstruction of submerged coastal features; field trips to selected coastal features.
GSCI	3710	Engineering and Environmental Geology	Application of geological principles to engineering and environmental problems. Topics include site investigation, geologic hazards, slope processes, earthquakes, subsidence, and the engineering properties of geologic materials. Course intended for both geoscience and engineering majors.

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GSCI	4050W	Geoscience and Society	Application of fundamental geological principles to issues of concern to society such as global climate change; wildfires; drought and water resources; earthquake, volcano, and tsunami hazards; medical geology; energy resources; sustainability; and coastal processes.
GSCI	4510	Applied and Environmental Geophysics	Principles of imaging the Earth's interior using observations of electric, magnetic and gravity fields, with applications to environmental problems.
GSCI	4520	Exploration Seismology	Principles of seismic methods for imaging the interior of the earth, with applications to resource exploration and environmental problems.
HCMI	Healthcare Management and Insurance Studies		
HCMI	4448	Clinical and Social Issues in Health Care	Covers clinical and social issues affecting health care provider organizations, such as the health needs of special population groups, public health concerns, epidemiological issues, and health care quality. Discussion will include how health care organizations address such issues through methods including clinical studies, disease management, partnership between private and public sectors, and legislative initiatives.
HIST	History		
HIST	1203	Women in History	The historical roots of challenges faced by contemporary women as revealed in the Western and/or non-Western experience: the political, economic, legal, religious, intellectual, and family life of women.
HIST	1503	Introduction to American Studies	What is an American? A multi-disciplinary inquiry into the diversity of American societies and cultures.
HIST	1570	Migrant Workers in Connecticut	Interdisciplinary honors course on the life and work experiences of contemporary Latin American and Caribbean migrant workers with focus on Connecticut. Integrated service learning component.
HIST	1600	Introduction to Latin American and the Caribbean	Multidisciplinary exploration of the historical development of such aspects of Latin America and the Caribbean as colonization and nation formation; geography and the environment; immigration and migration; race, ethnicity, and gender in society, politics, economy, and culture.
HIST	2206	History of Science	Development of modern science and technology in relation to culture, politics, and social issues.
HIST	2210	History of the Ocean	Cultural, environmental, and geopolitical history of the ocean from prehistory to the present. Examines the impact of migration, industrialization, modernization, and globalization on the relationships between people and oceans.
HIST	3201	The History of Human Rights	Case studies in the emergence and evolution of human rights as experience and concept.
HIST	3208	Making the Black Atlantic	Recent scholarship on the central role played by African-descended communities in shaping the early history of the Americas and their interconnection beyond geopolitical boundaries; race, gender, sexuality, class, religion, cultural movements and practices; slavery, political economy, and political movements.

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HIST	3209	Maritime Archaeology of the Americas	Archaeological and historical sources to examine the development of seafaring practices, exploration, waterborne trade and economic systems, naval warfare and shipbuilding in the Americas from the fifteenth to the beginning of the twentieth century.
HIST	3426	Social and Economic History of Modern Britain	The change from an agrarian to an industrial society.
HIST	3541	The History of Urban America	The development of Urban America with emphasis on social, political, physical, and environmental change in the industrial city.
HIST	3544	Atlantic Voyages	Seafaring and society since the age of Columbus. Emphasis on the Anglo-American experience.
HIST	3554	Immigrants and the Shaping of American History	The origins of immigration to the United States and the interaction of immigrants with the social, political, and economic life of the nation after 1789, with emphasis on such topics as nativism, assimilation, and the “ethnic legacy.”
HIST	3555	Work and Workers in American Society	Changes in work from the 17th through the 20th centuries. Workers’ experiences, ideologies, and activities as shaped by gender, race/ethnicity, region, occupation, and industry.
HIST	3560	Constructions of Race, Gender, and Sexuality in U.S. History	Examination of historical development, interconnections, and complexities of conceptions of race, gender, and sexuality in U.S. from European conquest to the present.
HIST	3561	History of Women and Gender in the U.S. to 1850	Gender ideologies of indigenous and settler cultures, changing conditions of women’s and men’s lives as the U.S. became a nation, while emphasizing intersections with ethnicity, race, class, religion, and region.
HIST	3562	History of Women and Gender in the United States, 1850-Present	History of gender and the lives and cultural representations of women in the U.S., emphasizing intersections with race, sexuality, class, region, and nation.
HIST	3563	African American History to 1865	History of African-American people to 1865, from their West African roots, to their presence in colonial America, through enslavement and emancipation. Adaptation and resistance to their conditions in North America. Contributions by black people to the development of the United States.
HIST	3564	African American History Since 1865	History of African-American people since the Civil war. Contributions by black people to American development. African-American activity in international arenas.
HIST	3570	American Indian History	Surveys American Indian History in what is now the United States from Pre-Columbian times up to the present. Cultural diversity among Indian peoples, the effects of European contact, tribal sovereignty, and other current issues.
HIST	3620	Cuba, Puerto Rico, and the Spanish Caribbean	Discovery and settlement, slavery and plantation economy, recent political and economic developments, and United States relations with the Spanish Caribbean.
HIST	3621	Cuba in Local and Global Perspective	Major themes in Cuban politics and culture. Local and global perspective. Key topics include race, gender, class, cultural movements and practices, slavery, political economy and movements, nationalism.
HIST	3622	History of Gender and Sexuality in Latin America and the Caribbean	Topics may include empire and colonialism/anti-colonialism; slavery, science, and the state; cultural practices and institutions; feminisms and masculinities; law and public policies; immigration; forms of labor and political mobilization; sex and reproduction; and human rights from historical perspective.

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HDFS	Human Development and Family Studies		
HDFS	1060	Close Relationships Across a Lifespan	Theory and research on topics in the close relationship literature including attraction, relationship development and maintenance, friendship and social support, love, sexuality, intimacy, power, communication, conflict, dissolution and divorce, and bereavement.
HDFS	1070	Individual and Family Development	Human development throughout the life span, with emphasis upon the family as a primary context.
HDFS	2100	Human Development: Infancy Through Adolescence	Individual development and behavior from prenatal period through adolescence; impact of peers, school, other social agencies, and especially the family.
HDFS	2200	Human Development: Adulthood and Aging	Individual development and behavior from young adulthood through later life with special attention given to family and social influences. Physical, cognitive, social and personality changes, role transitions, and interpersonal and intergenerational relationships.
HDFS	2300	Family Interaction Processes	Family interaction: communication processes, bonding behaviors, management of conflict and aggression, negotiation of family crisis.
HDFS	3110	Social and Community Influence on Children in the United States	Based on an ecological/contextual perspective students investigate the impact on child development of community characteristics and social groups and organizations on the development of children in the United States. Possible topics include: family, peers, schools, media, economic status, health care, social services, and the legal system. For each topic, focus is on factors related to promoting resilience.
HDFS	3268	Latinos: Sexuality and Gender	Critical discussion of issues involving gender and sexuality among Latinos, with particular attention to race, class, ethnicity, and acculturation.
HDFS	3310	Parent-Child Relations in Cross-Cultural Perspective	Theory and research on major dimensions of parenting in the U.S.A. and cross-culturally: parental warmth, control and punishment.
HDFS	3319	Risk and Resilience in Individuals and Families	Challenges, stresses, and crises experienced by individuals and families; protective factors and resilience; coping strategies; prevention and intervention.
HDFS	3340	Individual and Family Interventions	An introduction to individual, couple, family, and group intervention. Topics include counseling theories, developmentally appropriate interventions, and methods for addressing diversity. Intervention strategies used in a variety of human services settings are examined.
HDFS	3343	Family Life Education	Theory and practice of family life education including program development, implementation, evaluation, and professional ethics.
HDFS	3420	Abuse and Violence in Families	Historical, psychological, sociological and legal issues relating to abuse and family violence across the lifespan, including child maltreatment and elder abuse. Introduction to methods for prevention and remediation.
HDFS	3421	Low Income Families	Impact of poverty and related problems on development of the child in the context of the family. Family structure, childrearing patterns, early educational and community programs.
HDFS	3433	Consumer Rights and Responsibilities	The rights and responsibilities of consumers with emphasis on the consumer decisions of individuals, households, and families throughout the lifespan.

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HDFS	3510	Planning and Managing Human Service Programs	Planning techniques: needs assessment, data collection and analysis, budgeting, and evaluation. Management skills: decision making, management theory and organizational behavior, personnel motivation, accountability, and financial management.
HDFS	3520	Legal Aspects of Family Life	Overview of historical roots and key aspects of family law. The case method is used to analyze the causes and effects of contemporary trends. Topics include: the regulation of marriage, separation, and divorce; procreation and abortion; adoption; child custody and support; and, end-of-life issues.
HDFS	3530	Public Policy and the Family	Analysis of government programs and policies impacting the family: child care, aging, family law, mental health, family violence, income maintenance, and family impact analysis.
HDFS	3540	Child Welfare, Law and Social Policy	Examines the methods through which empirical social science research can affect law and public policy affecting children and families.
HDFS	3550	Comparative Family Policy	Comparative analysis of government programs and policies impacting families in the United States and other countries. Health and welfare policies, family planning, child care, teen pregnancy, and care of the aged.
HRTS	Human Rights		
HRTS	2263	Women and Violence	Discussion of various forms of gendered violence in the United States and in a global context. Physical, sexual, emotional and structural violence; social, political and personal meanings of gendered violence; special emphasis on women.
HRTS	3028	Indigenous Rights and Aboriginal Australia	An introduction to the study and understanding of Aboriginal ways of life and thought. An exploration of the complexity of contemporary indigenous social orders and land rights issues.
HRTS	3042	Theories of Human Rights	Various theories of human rights, both historical and contemporary. Conceptual arguments both in favor and critical of the theory and practice of human rights will be considered, with literature taken primarily from philosophy and political theory.
HRTS	3139	Theatre and Human Rights	Provides a critical study of theatre production as political discourse in global areas of conflict and how that discourse defines, or is defined by, human rights issues.
HRTS	3149	Human Rights Through Film	Human rights-related issues explored via the cinematic medium. Both the substantive content and the technical aspects of the films will be analyzed through a combination of lecture, viewing, and group discussion.
HRTS	3201	The History of Human Rights	Case studies in the emergence and evolution of human rights as experience and concept.
HRTS	3207	Genocide after the Second World War	Origins of the 1948 Genocide Convention. Several case studies of genocide post WWII: Cambodia, Rwanda, the former Yugoslavia, and Darfur. Causes and underlying dynamics of genocide with an emphasis on the international response. Critical evaluation of military, political, and non-governmental measures to prevent genocidal acts.

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HRTS	3252	Corporate Social Impact and Responsibility	Social impact and human rights implications related to global operations of multinational corporations; regulatory environment and competitive contexts that govern responsible business conduct on a global scale, how to navigate regulatory mandates and design social responsibility strategies to increase a firm's reputation, reduce costs, and improve its competitive positioning while <u>respecting human rights principles</u> .
HRTS	3254	Business Solutions for Societal Changes	Market-based solutions to social and human rights challenges; how companies create value both for society and business, including role of for-profit businesses as agents for positive social impact in changing legal, regulatory, policy, and market environments. Regulatory and business strategies for long-term economic viability, sustainability, and human rights. Social innovation, statutory benefit corporations, corporate social certifications, social investment, shared value, strategic philanthropy, <u>and business opportunities serving emerging markets</u> .
HRTS	3256	Politics and Human Rights in Global Supply Chains	Political and human rights implications of regulating contemporary global supply chains: official regulatory frameworks; non-regulatory approaches to rule-making (such as voluntary corporate codes of conduct and industry standards); social responses to the dilemmas of "ethical" sourcing of goods <u>and services</u> .
HRTS	3420	Being International: Geopolitics and Human Rights	Human rights theories and debates and their historical, institutional and geopolitical contexts.
HRTS	3421	Class, Power, and Inequality	Inequality and its consequences in contemporary societies.
HRTS	3573	Asian Indian Women: Activism and Social Change in India and the US	How gender, class and ethnicity/race structure everyday lives of Asian Indian women in both India and the United States.
HRTS	3631	Literature, Culture, and Humanitarianism	Relationships between literature and culture and humanitarian movements, from the eighteenth century <u>to the present</u> .
HRTS	3807	Constitutional Rights and Liberties	The role of the Supreme Court in interpreting the Bill of Rights. Topics include freedoms of speech <u>and religion, criminal due process, and equal protection</u> .
HRTS	3825	African Americans and Social Protest	Social and economic-justice movements, from the beginning of the Civil Rights movement to the <u>present</u> .
HRTS	3835	Refugees and Humanitarianism	Social and political challenges of living as a refugee and working in humanitarian settings. Refugee camps, the institutional development of the United Nations High Commissioner for Refugees, and <u>alternative approaches to sanctuary</u> .
INTD	Interdepartmental		
INTD	2245	Introduction to Diversity Studies in American Culture	An interdisciplinary introduction to comparative multicultural studies in the United States. Topics may include: African American, Asian American, Latino/a, and Native American cultures; gender, <u>feminism, religious and sexual identities; and disability studies</u> .
INTD	3200	Introduction to Correctional Health	Major concepts and topics in correctional health.
INTD	3584	Seminar in Urban Problems	Discussions based upon assigned readings and led by faculty and invited speakers from outside and <u>within the University</u> .

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LAND	Landscape Architecture		
LAND	3310	Landscape Architecture: Construction I - Site Engineering	Theory and practice in manipulating landform in landscape architecture. Earthwork computation, drainage systems, sedimentation and erosion control, roadway design and low-impact design.
LAND	3330	Landscape Architecture: Construction III - Planting Design	Knowledge and theory of the role of plants as visual, spatial, ecological and cultural design elements and systems. Analysis and creation of planting plans that support and develop design concepts and respond to physical site conditions. Application on a variety of project types in a studio environment.
LAND	3420	Landscape Architecture: Design II - Space, Form and Meaning	Knowledge and theory of spatial form in architecture, landscape architecture and urban design. Application of theory in the creation of 3-dimensional landscape models in a studio environment. Student attitudes about self-expression, environmental issues and social responsibility will be explored.
LAND	4440	Landscape Architecture: Design IV - Community Planning	Knowledge and theory of design of large scale landscapes such as open space systems, village and town centers and residential subdivisions. Application of theory to a variety of projects including community outreach work.
LLAS	Latin and Latin American Studies		
LLAS	1190	Introduction to Latin America and the Caribbean	Multidisciplinary exploration of the historical development of such aspects of Latin America and the Caribbean as colonization and nation formation; geography and the environment; immigration and migration; race, ethnicity, and gender in society, politics, economy, and culture.
LLAS	1570	Migrant Workers in Connecticut	Interdisciplinary honors course on the life and work experiences of contemporary Latin American and Caribbean migrant workers with focus on Connecticut. Integrated service learning component.
LLAS	3241	Latin American Minorities in the United States	Emphasis on groups of Mexican, Puerto Rican and Cuban origin, including treatment and historical background, social stratification, informal social relations, ethnic perceptions, relations and the concept of Latino identity.
LLAS	3250	Latino Health and Health Care	Overview of health and health care issues among Latinos in the United States. Particular attention is paid to cultural and social factors associated with health and well-being (e.g. migration, acculturation, SES).
LLAS	3251	Latinos: Sexuality and Gender	Critical discussion of issues involving gender and sexuality among Latinos, with particular attention to race, class, ethnicity, and acculturation.
LLAS	3265	Literature of Puerto Rico and the Spanish Caribbean	Readings and discussions of major authors and works of the Spanish Caribbean with special emphasis on Puerto Rico.
LLAS	3622	History of Gender and Sexuality in Latin America and the Caribbean	Topics may include empire and colonialism/anti-colonialism; slavery, science, and the state; cultural practices and institutions; feminisms and masculinities; law and public policies; immigration; forms of labor and political mobilization; sex and reproduction; and human rights from historical perspective.

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LLAS	4320	Media and Diverse Audiences	Issues of race, ethnicity, culture, class, gender, and sexuality in mainstream and alternative media. Analysis of how diverse groups use the media, are represented in, and interpret media content.
LING	Linguistics		
LING	1030	The Diversity of Languages	Overview of world languages and language families. Typological classifications of linguistic properties: what can we expect in the structure of a language? Unity and diversity of language systems. Mechanisms of language change and variation.
LING	3610W	Language and Culture	The study of language, culture, and their relationship. Topics include the evolution of the human language capacity; the principles of historical language change including reconstruction of Indo-European and Native American language families; writing systems; linguistic forms such as Pidgins and Creoles arising from languages in contact; the interaction between language and political systems, the struggle for human rights, gender, ethnicity, and ethnobiology.
MGMT	Management		
MGMT	1801	Contemporary Issues in the World of Management	Topics reflecting the complexities, challenges and excitement of today's business world.
MGMT	3239	Managing a Diverse Workforce	Examines issues related to managing an increasingly diverse workforce. Diversity in the workplace may result from differences in individual characteristics such as gender, race, ethnicity, national origin, and physical ability/disability. Diversity-related issues with management implications to be examined include personal identity, recruitment and selection, work group interactions, leadership, career development and advancement, sexual harassment, work and family, accommodation of people with disabilities, and organizational strategies for promoting equal opportunity and a positive attitude toward diversity among all employees.
MARN	Marine Sciences		
MARN	1002	Introduction to Oceanography	Processes governing the geology, circulation, chemistry and biological productivity of the world's oceans. Emphasis is placed on the interactions and interrelationships between physical, chemical, biological and geological processes that contribute to both the stability and the variability of the marine environment.
MARN	1003	Introduction to Oceanography with Laboratory	Processes governing the geology, circulation, chemistry and biological productivity of the world's oceans. Emphasis on the interactions and interrelationships of physical, chemical, biological and geological processes that contribute to both the stability and the variability of the marine environment. Laboratory experiments, hands-on exercises, and field observations including required cruise on research vessel.
MARN	1004	Oceanography Laboratory	Laboratory experiments, hands-on exercises, and field observations (including required cruise on research vessel) that teach fundamental oceanographic concepts emphasizing physical, chemical, and biological processes and their interaction in the marine environment.

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MARN	2002	Marine Sciences I	Biological, chemical, physical, and geological structure and function of coastal systems; a worldwide survey with emphasis on important coastal habitats and processes.
MARN	2060	Introduction to Coastal Meteorology	Introduction to the structure, circulation, and thermodynamic processes within the Earth's atmosphere. Emphasis on weather phenomena impacting the coastlines, including sea breezes, coastal convection, waterspouts, and hurricanes.
MARN	3001	Marine Sciences II	Biological, chemical, physical and geological structure and function of coastal systems, with a special focus on field observations in three important coastal habitats: beaches and rocky shores, marshes, and estuaries.
MARN	3012	Marine Invertebrate Biology	Comparative examination of major adaptations and functional responses of marine invertebrates to biotic and abiotic factors in the marine environment. Field trips required.
MARN	3015	Molecular Approaches to Biological Oceanography	Principles and technology in nucleic acid purification and manipulation, DNA fingerprinting, gene cloning and sequencing, phylogenetic analysis, and detection of gene expression (mRNA and protein). Application examples in marine ecological studies.
MARN	3060	Coastal Circulation and Sediment Transport	Circulation and mixing in estuaries and the inner continental shelf, including surface gravity waves, tides, and buoyancy and wind-driven circulation. Coastal sediments, geomorphology, and processes of sedimentation, erosion and bioturbation. Required field trips.
MARN	3230	Beaches and Coasts	Introduction to the processes that form and modify coasts and beaches, including tectonic setting, sediment supply, coastal composition, energy regimes and sea level change; tools and techniques utilized in marine geologic mapping and reconstruction of submerged coastal features; field trips to selected coastal features.
MARN	4010	Biological Oceanography	Structure and function of marine food webs, from primary producers to top trophic levels; interaction of marine organisms with the environment; energy and mass flow in food webs; elemental cycling; coupling between pelagic and benthic environments.
MAST	Maritime Studies		
MAST	1200	Introduction to Maritime Culture	A study of history and literature to understand the international maritime culture that links peoples, nations, economies, environments, and cultural aesthetics.
MAST	1300	Maritime Communities	Maritime communities and environment in an interdisciplinary and international context from economic, geographic, historical, and other social science perspectives.
MAST	2101	Introduction to Maritime Studies	An introduction to the interdisciplinary, study of maritime-related topics with an examination of the maritime physical environment and maritime cultures, history, literature, and industries.
MAST	2210	History of the Ocean	Cultural, environmental, and geopolitical history of the ocean from prehistory to the present. Examines the impact of migration, industrialization, modernization, and globalization on the relationships between people and oceans.
MAST	2467	Economics of the Oceans	Economies of industries that use and manage ocean resources. Applications of industrial organization, law and economics, natural resource theory, and environmental economics.

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MAST	3531	Maritime Archaeology of the Americas	Archaeological and historical sources to examine the development of seafaring practices, exploration, waterborne trade and economic systems, naval warfare and shipbuilding in the Americas from the fifteenth to the beginning of the twentieth century.
MSE	Materials Science and Engineering		
MSE	4241	Nanomaterials Characterization and Application	Introduces materials characterization and applications at the nanoscale. Standard and advanced methods in Scanning Probe Microscopy, Electron Microscopy, and Focused Ion Beams are presented. Self-Assembled and Lithographically defined structures are treated. Nanoscale particles, tubes, films, and structures are discussed. Applications for enhanced mechanical, electronic, magnetic, optical, and biological properties are described. Societal implications including performance, costs, environmental impacts, and health issues are addressed. Readings from modern scientific literature are assigned weekly for in-class discussions.
MSE	4800	Materials for Advanced Fossil Energy Systems	Will familiarize students with the state of the art in fossil fuel power generation technologies ranging from conventional combustion to emerging technologies such as oxy-fuel combustion; integrated coal gasification (IGCC) and fuel cell (IGFC) systems; and CO ₂ separation and sequestration.
MCB	Molecular and Cell Biology		
MCB	2000	Introduction to Biochemistry	The structure, chemistry, and metabolism of carbohydrates, lipids and proteins. Enzyme function and kinetics, energy metabolism, and structure and function of nucleic acids. A survey course for students of agriculture, general biology, medical technology, nursing, and pharmacy. Molecular and Cell Biology majors, biophysics majors, and other students desiring a more intensive introduction or considering advanced course work in biochemistry or molecular biology should take MCB 3010. A fee of \$25 is charged for this course.
MCB	2610	Fundamentals of Microbiology	Biology of microorganisms, especially bacteria. Cellular structure, physiology, genetics, and interactions with higher forms of life. Laboratory familiarizes students with methodology of microbiology and aseptic techniques.
MCB	3010	Biochemistry	The structure and function of biological macromolecules. The metabolism of carbohydrates, lipids, amino acids, proteins and nucleic acids. The regulation of metabolism and biosynthesis of biological macromolecules. An in-depth introduction intended for students planning to take advanced course work in biochemistry, biophysics, or other areas of molecular biology.
NRE	Natural Resources and the Environment		
NRE	2010	Natural Resources Measurements	Principles and instrumentation used in the measurement of environmental conditions and processes.
NRE	2345	Introduction to Fisheries and Wildlife	An introduction to the basic principles used in the management of wildlife and fish populations, their habitats and ecosystems, and their human stewards. Students will be introduced to the fundamental concepts, topics, and skill sets that are commonly needed in the wildlife and fisheries profession.

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NRE	2415	Dendrology	The taxonomy, silvics, and distribution of trees and shrubs of the United States with emphasis upon Northeastern species. Field trips will be required.
NRE	3145	Meteorology	A survey course in meteorology at the introductory level covering weather and climate processes.
NRE	3155	Water Quality Management	An introduction to all aspects of water quality problems relating to the many beneficial uses of water, including the physical, chemical, and biological properties.
NRE	3201	Conservation Law Enforcement	Basic pre-professional course for majors in natural resource conservation and related disciplines. Recommended for persons considering a career in wildlife, fisheries, law enforcement, or other natural resource conservation and management disciplines.
NRE	3335	Wildlife Management	Brief review of wildlife conservation and ecological principles; management of wetlands, farmlands, rangelands, and forest lands for wildlife; programs dealing with exotic, urban, nongame, and endangered wildlife; contemporary economic, administrative, and policy aspects of management.
NRE	3345	Wildlife Management Techniques	Design and implementation of projects for wildlife research and monitoring that address conservation and management issues. Topics include capture and handling of animals, population estimation, wildlife-habitat relationships, resource selection, and space use. This course is designed for pre-professional students and meets professional certification requirements.
NRE	3365	Private Lands Wildlife Management	Companion course for Public Lands Wildlife Management (NRE 3355). Provides practical experience and acquaintance with persons or groups managing wildlife resources on private properties such as nature preserves, land trusts, non-governmental organizations, farms, recreational clubs, commercial shooting preserves and propagation facilities. Appreciation for private land management options, economic realities and other challenges, plus ability to assess resource potentials on private land, are stressed. Field trips required.
NRE	3535	Remote Sensing of the Environment	The principles of the interpretation of remote sensing imagery acquired from aircraft and satellite platforms will be studied. Applications of remote sensing to natural resources and the environment will be discussed.
NRE	4335	Fisheries Management	Introduction to fisheries management principles with application to the biotic, habitat, and human components of fisheries. Selected topics include sampling gears, harvest regulations, stocking, population dynamics, and habitat management practices in ponds, lake, reservoir, river, and stream fisheries.
NUSC	Nutritional Sciences		
NUSC	1030	Interdisciplinary Approach to Obesity Prevention	Explores the biology of obesity including genetic predispositions and behaviors that increase obesity risk (dietary, physical activity, social, psychological), the obesigenic environment, including how communities are physically built, as well as the economic relationship to obesity risk, and policy and ethical implications for obesity prevention. Multi-level obesity prevention approaches that involve the individual, family, organization, community, and policy.

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NUSC	1166	Honors Colloquium in Nutrition	Lectures, discussions, and laboratory exercises to complement topics from NUSC 1165. Primarily for, but not restricted to, honors students.
NUSC	1645	The Science of Food	An introductory level course for students interested in the application of science to food. Nutritional and functional attributes of various food constituents are discussed. Issues concerning food processing and food safety are covered.
NUSC	3171	Husky Nutrition I	Lecture and experiential learning in pre-schools where students conduct learning activities about reducing sweetened beverage consumption. Lecture, applied learning laboratory, supervised field work with community nutrition education and problem-solving. Readings, discussion and reflections.
NUSC	3172	Husky Nutrition II	Lecture and learning laboratory, with supervised field work in providing healthy nutrition education in community settings. Readings, quizzes, discussions, reflections and a term paper.
PVS	Pathobiology and Veterinary Science (PVS)		
PVS	1000	Biomedical Issues in Pathobiology	This introductory course focuses on current global issues of health and disease to describe fundamental topics in pathobiology. Global biomedical concerns regarding infectious diseases, population, cancer, biotechnology and environmental health will be addressed. Course content will provide examples of the impact of veterinary and human pathology on world health issues.
PHIL	Philosophy		
PHIL	1104	Philosophy and Social Ethics	Topics may include the nature of the good life, the relation between social morality and individual rights, and practical moral dilemmas.
PHIL	1175	Ethical Issues in Health Care	Theories of ethics, with specific application to ethical issues in modern health care.
PHIL	2217	Social and Political Philosophy	Conceptual, ontological, and normative issues in political life and thought; political obligation; collective responsibility; justice; liberty; equality; community; the nature of rights; the nature of law; the justification of punishment; related doctrines of classic and contemporary theorists such as Plato, Rousseau, John Rawls.
PHIL	3218	Feminist Theory	Philosophical issues in feminist theory. Topics may include the nature of gender difference, the injustice of male domination and its relation to other forms of domination, the social and political theory of women's equality in the home, in the workplace, and in politics.
POLS	Political Science		
POLS	3042	Theories of Human Rights	Various theories of human rights, both historical and contemporary. Conceptual arguments both in favor and critical of the theory and practice of human rights will be considered, with literature taken primarily from philosophy and political theory.
POLS	3072	Political Protest and Ideology	Variants of major ideologies such as liberalism, socialism, communism, anarchism, fascism, and feminism in their socio-historical context, as well as alternative visions from the Third World.

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POLS	3082	Critical Race Theory as Political Theory	Interdisciplinary scholarship on racial identity, legal decisions, and political action from the perspective of political science and political theory. Topics include interactions between states and social movements, the intersections of race, class, gender, and membership, and the problems with both post-racialism and identity politics.
POLS	3208	Politics of Oil	Historical and contemporary role of oil in comparative politics and international relations.
POLS	3211	Politics of Water	The role of water in state building, state-society relations, and economic and political development. Draws on approaches from comparative politics and international relations.
POLS	3245	Chinese Politics and Economy	Chinese political structure and policymaking process, attempts at democratization, process and outcome of economic reforms, development challenges in contemporary China.
POLS	3256	Politics and Human Rights in Global Supply Chains	Political and human rights implications of regulating contemporary global supply chains: official regulatory frameworks; non-regulatory approaches to rule-making (such as voluntary corporate codes of conduct and industry standards); social responses to the dilemmas of “ethical” sourcing of goods and services.
POLS	3647	Black Leadership and Civil Rights	Black leadership, emphasizing the principles, goals, and strategies used by African-American men and women to secure basic citizenship rights during the civil rights era.
POLS	3652	Black Feminist Politics	An introduction to major philosophical and theoretical debates at the core of black feminist thought, emphasizing the ways in which interlocking systems of oppression uphold and sustain each other.
POLS	3807	Constitutional Rights and Liberties	The role of the Supreme Court in interpreting the Bill of Rights. Topics include freedoms of speech and religion, criminal due process, and equal protection.
POLS	3832	Maritime Law	International and domestic legal concepts concerning jurisdiction in a maritime setting.
POLS	3834	Immigration and Transborder Politics	U.S. immigration policy, trans-border politics, and the impact diasporas and ethnic lobbies have on U.S. foreign policy, with emphasis on Latino diasporas.
POLS	3850	Politics and Ethics	Relationship between power and ethics in political life. Examination of ethical perspectives on political decisions and issues.
PSYC	Psychology		
PSYC	2208	Sensory Systems Neuroscience	Cellular, circuit, and neural systems basis of sensation and perception including evolutionary and ecological differences among mammals.
PSYC	2701	Social Psychology of Multiculturalism	Introduction to theoretical perspectives and behavioral research that seek to explain the nature and mechanisms of intergroup relations and the psychology of culture, prejudice, and biased behavior.
PSYC	3102	Psychology of Women	Gender roles, socialization, women and work, women’s relationships, violence against women, and other topics. Theory and research.
PSYC	3106	Black Psychology	Empirical and theoretical literature on psychological experiences of African Americans. Impact of race, culture, and ethnicity on psychological development.

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PSYC	3644	Occupational Health Psychology	Models, research methods, and research-to-practice applications in the interdisciplinary field of occupational health psychology, and how these are used to enhance the safety, health and well-being of workers in all occupations and to create healthier workplaces and organizations.
SOCI	Sociology		
SOCI	1701	Society in Global Perspectives	Economic, political, social and cultural processes in globalization. The world economy, the autonomy of nation-states, the role of the media, and the social and environmental problems of societies in a world context.
SOCI	2501	Sociology of Intolerance and Injustice	Sociological concepts of intolerance and injustice and how they affect members of marginalized groups; case studies may consider social class, race/ethnicity, gender, sexuality, age, religion, and disability.
SOCI	2503	Prejudice and Discrimination	Sources and consequences of racial and ethnic prejudice and discrimination.
SOCI	2827	Revolutionary Social Movements Around the World	Lectures and documentary films on the Russian, Chinese, Vietnamese, Cuban and Nicaraguan revolutions and movements in South Africa and the Middle East.
SOCI	3221	Sociological Perspectives on Asian American Women	An overview of social structures, inter-group relations, and women's rights, focusing on the experience of Asian American women.
SOCI	3222	Asian Indian Women: Activism and Social Change in India and the US	How gender, class and ethnicity/race structure everyday lives of Asian Indian women in both India and the United States.
SOCI	3271	Topics in the Sociology of Culture	A variable topics course focusing on issues in the sociology of culture. Specific topics may include: production of culture and the culture industry, popular culture, the sociology of the arts, cultural representation of deviance and social problems, women and culture, film and the developing world, material culture, and cultural constructions of social inequality.
SOCI	3421	Class, Power, and Inequality	Inequality and its consequences in contemporary societies.
SOCI	3425	Social Welfare and Social Work	Social welfare needs and programs; introduction to social work as a professional service.
SOCI	3429	Sociological Perspectives on Poverty	Poverty in th U.S. and abroad, its roots, and strategies to deal with it.
SOCI	3451	Sociology of Health	Social factors related to health, illness, and health-care systems.
SOCI	3453	Women and Health	Social factors shaping women's health, health care, and their roles as health-care providers.
SOCI	3501	Ethnicity and Race	Ethnic groups, their interrelations, assimilation, and pluralism. Culture, and identity that arise from differences in race, religion, nationality, region, and language.
SOCI	3505	White Racism	The origin, nature, and consequences of white racism as a central and enduring social principle around which the United States and other modern societies are structured and evolve.
SOCI	3601	Sociology of Gender	Explores processes contributing to social construction of gender; examines the theories used to explain the system of inequality in the United States with particular attention to the intersection of gender, race, ethnicity, sexuality, and class; and evaluates how men and women are differentially constituted in the family, in education, work, politics, and language.

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SOCI	3825	African Americans and Social Protest	Social and economic-justice movements, from the beginning of the Civil Rights movement to the present.
SOCI	3833	Topics in Sociology and Human Rights	Variable topics covering theoretical and empirical examination of social, political, economic, legal, and/or cultural issues of human rights from a sociological perspective.
SOCI	3835	Refugees and Humanitarianism	Social and political challenges of living as a refugee and working in humanitarian settings. Refugee camps, the institutional development of the United Nations High Commissioner for Refugees, and alternative approaches to sanctuary.
SOCI	3903W	Urban Problems	Social problems of American cities and suburbs, with emphasis on policy issues.
SPSS	Sustainable Plant and Soil Systems		
SPSS	2125	Soils Lab	Basic laboratory analysis of the physical and chemical properties of soil. Includes weekend field trips.
SPSS	2430	Herbaceous Ornamental Plants	Identification, nomenclature, cultural requirements and landscape uses of herbaceous perennials, ornamental grasses, ferns, annuals and bulbs. Study of live plants is required.
SPSS	3090	Field Study of U.S. Food Production Systems	Visits to and discussions with farmers of agronomic, vegetable, fruit and livestock production systems in the Northeastern United States, the Corn Belt and the High Plains. Visits to agricultural research stations for discussions with scientists and educators, and visits to agricultural infrastructure sites such as retail fertilizer dealerships, granaries, and post production facilities such as juice factories or flour mills will also be included.
SPSS	3410	Woody Plants: Common Trees, Shrubs and Vines	Taxonomy, identification, ornamental characteristics, cultural requirements and landscape use of deciduous and evergreen woody plants most often utilized in landscapes of the northeastern United States and similar environs.
SPSS	3640	Plant Propagation	Theory and practice in sexual and asexual propagation of horticultural plants, emphasizing the anatomical, physiological, and ecological principles involved. Laboratories provide practical experience with seeds, division, cuttings, budding, grafting, layering and tissue culture.
SPSS	3670	Greenhouse Technology and Operations	Introduction to greenhouse systems with emphasis on structures, environmental control, root media, irrigation and fertilization, and pest control, in relation to requirements for plant growth and crop production.
SPSS	3820	Ecology and Control of Weeds	Weed origin and classification. Losses caused by weeds. Weed competition. Weed seed production, dormancy and germination. Cultural, mechanical, biological and chemical control methods. Weed identification.
SPSS	3840	Integrated Pest Management	Principles of integrated pest management covering insect, disease, and weed problems in agronomic crops, vegetables, fruits, turfgrass, ornamentals, and greenhouse production. Environmental impacts and pest control strategies will be covered.
SPSS	4210	Plant Physiology: How Plants Work	Principles of plant physiology and gene expression from the cell to the whole plant level. Emphasis on plant cell structure, water movement, transport systems, photosynthesis, respiration, phytohormone signals and responses to environmental stresses.
SPSS	4994	Seminar	Professional presentations of current topics in Plant Science.

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URBN		Urban and Community Studies	
URBN	2000	Introduction to Urban and Community Studies	Introduction to the analysis of urban development with particular stress on those problems pertinent to the American central city.
URBN	3000	Urban Anthropology	A general course on urbanization, emphasizing contrasts between “developed” and “developing” countries.
URBN	3276	Urban Problems	Social problems of American cities and suburbs with emphasis on policy issues.
URBN	3439	Urban and Regional Economics	Economic problems of cities and regions: urban markets for land, labor, and housing; location decisions of businesses and households; metropolitan transportation problems; urban/suburban fiscal relations; urban and regional environmental quality; and the economics of crime.
URBN	3541	The History of Urban America	The development of urban America with emphasis on social, political, physical, and environmental change in the industrial city.
URBN	4000	Understanding Your Community	Examination of an urban area or local community. Production of a detailed case study including historical perspective, analysis of issues and stakeholders, evaluation of internal strengths and weaknesses as well as external threats and opportunities. Proposal of strategies for addressing problems and advancing equity, growth, and development.
WGSS		Women's, Gender, and Sexuality Studies	
WGSS	1104	Feminisms and the Arts	Interdisciplinary exploration of the work of women artists in drama, the visual arts, music, literature, and/or film. Key issues of feminist criticism in the arts are discussed.
WGSS	1121	Women in History	The historical roots of challenges faced by contemporary women as revealed in the Western and/or non-Western experience: the political, economic, legal, religious, intellectual, and family life of women.
WGSS	2255	Sexualities, Activism, and Globalization	Globalization of LGBT identities, cultures and social movement activism, and cultures from a transnational perspective; use, role, and impact of digital media.
WGSS	2263	Women and Violence	Discussion of various forms of gendered violence in the United States and in a global context. Physical, sexual, emotional and structural violence; social, political and personal meanings of gendered violence; special emphasis on women.
WGSS	2267	Women and Poverty	Exploration of poverty and gender inequality within the frameworks of the global political economy in select countries. Impact of race, class, and gender differences on policy.
WGSS	3102	Psychology of Women	Gender roles, socialization, women and work, women’s relationships, violence against women, and other topics. Theory and research.
WGSS	3105	The Politics of Reproduction	National and transnational politics of reproduction including: contraception, sexuality education, abortion, childbirth, surrogacy, adoption, health care policy and funding.
WGSS	3218	Feminist Theory	Philosophical issues in feminist theory. Topics may include the nature of gender difference, the injustice of male domination and its relation to other forms of domination, the social and political theory of women’s equality in the home, in the workplace, and in politics.

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WGSS	3254	Women and Gender in the Deaf World	The roles of women inside and outside the Deaf world. How language and cultural barriers perpetuate the roles defined for and by d/Deaf women within Deaf and hearing societies.
WGSS	3271	Seminar on Rape Education and Awareness I	Explores issues of sexual violence and trains those enrolled to facilitate rape awareness workshops for the campus community. Students are required to attend an intensive two-day training program and participate in weekly seminars.
WGSS	3272	Seminar on Rape Education and Awareness II	Further explores broader issues of sexual violence and continues to train those enrolled to facilitate rape awareness workshops for the campus community. Students are required to participate in weekly seminars and facilitate rape awareness workshops.
WGSS	3560	Constructions of Race, Gender, and Sexuality in U.S. History	Examination of historical development, interconnections, and complexities of conceptions of race, gender, and sexuality in U.S. from European conquest to the present.
WGSS	3561	History of Women and Gender in the U.S. to 1850	Gender ideologies of indigenous and settler cultures, changing conditions of women's and men's lives as the U.S. became a nation, while emphasizing intersections with ethnicity, race, class, religion, and region.
WGSS	3562	History of Women and Gender in the United States, 1850-Present	History of gender and the lives and cultural representations of women in the U.S., emphasizing intersections with race, sexuality, class, region, and nation.
WGSS	3609	Women's Literature	Works written by women from different countries and centuries.
WGSS	3611	Women's Literature 1900 to the Present	Modern and contemporary works written by women from different countries.
WGSS	3613	Introduction to LGBT Literature	An introduction to themes of sexual diversity in literature, related to lesbian, gay, bisexual, and transgender issues.
WGSS	3621	Sociology of Sexualities	Explores the social organization, construction, and politics of sexualities; particular focus on lesbian, gay, bisexual, transgender, and queer experiences and the intersection of sexualities, gender, race, and class.
WGSS	3622	History of Gender and Sexuality in Latin America and the Caribbean	Topics may include: empire and colonialism/anti-colonialism; slavery, science, and the state; cultural practices and institutions; feminisms and masculinities; law and public policies; immigration; forms of labor and political mobilization; sex and reproduction; and human rights from historical perspective.
WGSS	3652	Black Feminist Politics	An introduction to major philosophical and theoretical debates at the core of black feminist thought, emphasizing the ways in which interlocking systems of oppression uphold and sustain each other.

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Graduate Courses Focused on Sustainability			
Department	Course Number	Course Name	Description
AH	Allied Health		
AH	5331	Nutrition for Healthy Communities	Development of knowledge and skills in public nutrition including community assessment, development of program policies, and program planning, implementation, and evaluation.
AH	5366	Environmental Health	Focuses on the environmental health consequences of exposure to toxic chemicals, food contaminants and radiation. Basic principles of environmental health are discussed, followed by lectures on specific topics such as: cancer and reproductive risks, occupational hazards, radiation, genetic biomonitoring, risk assessment techniques, risk/benefit analysis, social/legal aspects of regulating toxic chemicals, and other related topics.
AH	5503	Poverty and Public Health	Social determinants of health and poverty. Health impact assessments. Improving the social determinants of health and poverty, including countries in conflict.
AH	5504	Nutrition During Human Emergencies	The course examines the cycle of malnutrition and disease, and major food and nutrition challenges faced by refugee and displaced populations. It covers types of feeding and nutrition supplementation programs in emergencies, and nutritional assessment as a tool to design, target and evaluate feeding and supplementation programs in emergencies. The course addresses feeding of special populations such as: infants, pregnant and lactating women, and the elderly during emergencies; international agencies, non-government organizations, and government programs involved with food aid and relief; and food as a human right.
AH	5505	Principles of Sustainability	This course will provide students with an understanding of the basic principles of environmental, social, and economic sustainability and will assist students to develop the ability to apply these principles to current issues of sustainability.
ANTH	Anthropology		
ANTH	5306	Human Behavioral Ecology	This seminar will apply the theory of natural selection to the study of human behavior in an ecological setting, with particular focus on the adaptive features and biological design of human behavior.
ANTH	5377	Global Health and Anthropology	Assessing global morbidity and mortality; global health governance; political economy of global health; health inequities; social determinants of health; syndemics; climate change and health; maternal and child health; nutrition; infectious diseases; and war, trauma, and complex emergencies.
ANTH	5390	Cultural Rights	Politics of culture and cultural rights, minority rights, indigenous rights, multicultural policies, race, difference and law, cosmopolitanism, globalization and human rights.

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ANTH	5391	Human Rights in a Diverse World	Basic issues, methods and theories in the anthropological study of human rights; cultural relativism, the international human rights system, social movements, transnational activist networks, media and representation are studied in their relationship to rights claims, adjudication, and outcomes.
ANTH	5392	Human Rights in a Diverse World	Basic issues, methods and theories in the anthropological study of human rights; cultural relativism, the international human rights system, social movements, transnational activist networks, media and representation are studied in their relationship to rights claims, adjudication, and outcomes.
ARE	Agricultural and Resource Economics		
ARE	5150	Microeconomic Foundations for Sustainability	Theory and tools of microeconomic foundations for sustainable development. Intermediate understanding of applied microeconomics and practicing quantitative techniques for application to economic issues using electronic spread sheets.
ARE	5201	Microeconomics	Beginning graduate microeconomics covering consumer and producer theory, price determination, economic efficiency, and welfare analysis.
ARE	5211	Quantitative Analysis for Sustainable Development	Quantitative methods used in the analysis of problems related to sustainable economic development with a focus on agriculture, natural resources, and the environment. Regression analysis, economic impact analysis, feasibility studies, enterprise budgets, and survey methods.
ARE	5215	Sustainable Business Management	Principles of management strategy with a focus in agribusiness. Marketing, financial and human resource management as well as budgeting techniques and the legal and organizational structure of <u>businesses from the perspective of sustainability.</u>
ARE	5305	The Role of Agriculture and Natural Resources in Economic Development	The role of agriculture in the economic development of less developed economies. Microeconomic dimensions of agricultural development, economics of food consumption and nutrition, agricultural technology and productivity, agricultural supply, land tenure and agrarian reform, foreign assistance, <u>trade agreements, and agricultural price policy.</u>
ARE	5462	Environmental and Resource Economics	Natural resource use and environmental quality analysis using economic theory. Reviews of empirical research and relevant policy issues.
ARE	6466	Environmental Economics	Economic analysis of environmental problems and corrective policy instruments. Theory of externalities and public goods, role of uncertainty and imperfect information in policy design, benefit-cost analysis, and non-market valuation. Applications to environmental problems (such as air and water pollution, hazardous waste, and occupational health and safety).
ARE	6468	Economics of Natural Resources	Economic concepts and issues related to the allocation of stock resources through time, the use and protection of flow resources, and the role of natural resources in economic growth.

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ARE	6470	Applied Research in Environmental Economics	This course develops a broad perspective on the peer-reviewed literature concerning the frontier areas of contemporary environmental economics, with an emphasis on incentive and market-based approaches to ecosystem services, valuation of environmental quality and assets, interface between experimental and environmental economics, including such topics as land use change, conservation, pollution control, water resource services, forest ecosystem management. Students will develop critical thinking skills evaluating published studies and identifying gaps in methodology and knowledge for future research.
ARE	6472	Microeconomics Applications to Food Markets	Trains students in applied microeconomics, with particular emphasis on food markets and public policy. The course is divided into three broad areas: production economics, economics of consumer behavior, and market analysis. Particular emphasis is placed on quantitative tools using empirical models and welfare economics. Students design and undertake an individualized project in their area of interest.
BADM	Business Administration		
BADM	5190	Sustainability in the Global Business Environment	Increasingly business leaders worldwide are recognizing the importance of organizations and broader business systems that enable stewardship of long-term value creation for all their stakeholders. This course examines approaches to meeting complementary and competing needs of shareholders, customers, employees and communities through the design and maintenance of global value chains. Students will assess alternative business models and management practices designed to enhance sustainability for an increasingly global array of stakeholders. Specific topics may include social enterprise management, environmental strategy, corporate social responsibility, serving “Base of the Pyramid” markets, socially responsible investing alongside issues relating to social, environmental and economic ecosystems.
BADM	5254	Managing the Future of Social Enterprise	Developing and managing market-based approaches to global human rights and social issues. Strategizing how companies create value both for society and business, including role of for-profit businesses as agents for positive social impact in changing legal, regulatory, policy, and market environments. Regulatory and business strategies that serve markets and promote long-term economic viability, sustainability, and human rights. Managerial perspectives on social innovation, statutory benefit corporations, corporate social certifications, social investment, shared value, strategic philanthropy and business opportunities serving emerging markets.

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BASC		Basics	
	5300	Human Oppression: The African-American and Puerto Rican Perspective	Examines economic, political, social and cultural forces operating at global, national and local levels, which generate and maintain oppression based on race and ethnicity in the United States. The course will focus on the oppression of the Black and Latino populations in the United States, highlighting the African-American and Puerto Rican experiences and perspectives. It will provide a framework for analyzing and understanding oppression. A historical perspective will be utilized to explore past and current oppression related to race and color, culture and ethnicity, social class, gender, sexual/emotional orientation and religion. Intercultural, intracultural, psychosocial, social and political responses to oppression will be addressed throughout the course.
BLAW		Business Law	
BLAW	5254	Managing the Future of Social Enterprise	Developing and managing market-based approaches to global human rights and social issues. Strategizing how companies create value both for society and business, including role of for-profit businesses as agents for positive social impact in changing legal, regulatory, policy, and market environments. Regulatory and business strategies that serve markets and promote long-term economic viability, sustainability, and human rights. Managerial perspectives on social innovation, statutory benefit corporations, corporate social certifications, social investment, shared value, strategic philanthropy and business opportunities serving emerging markets.
CE		Civil Engineering	
CE	5370	Environmental Modeling	Introduction to complexities and challenges associated with acquisition of information on environmental processes and characteristics of natural systems. Hands-on experience with selection of measurement strategy and sensing technology; sampling network and protocol design; and <u>deployment, acquisition and interpretation of measurements in natural systems.</u>
CE	5715	Sustainable Transformation	Assesses the role of the land-based transportation system in terms of how it affects the environmental, social and economic goals for a sustainable society. How the concept of sustainability can be used as a holistic framework for assessing the transportation and land use system. Strategies for reducing the environmental, social and economic footprint of the transportation/land use system and ways they can <u>be implemented.</u>
CE	5812	Ecohydrology	Focuses on the interactions between ecological processes and the water cycle, emphasizing the hydrological mechanisms underlying various terrestrial ecological patterns and the ecological properties controlling the hydrologic and climatic regimes. Topics include conceptual understanding of hydrological cycle over vegetated land, quantifying and modeling flux exchanges in the soil-vegetation-atmosphere continuum, case studies on the hydrological impact of land use land cover changes, ecosystem response to environmental changes, and vegetation-climate feedback at the <u>regional and global scales.</u>

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CE	6830	The Flood Problem	Flood hazards. Preventing or alleviating damages. Flood frequency analysis. Effect of land-use/land-cover and soil moisture on flooding. Remote sensing in flood prediction. Flood and dam-break modeling. Multiple purpose projects.
CHEM	Chemistry		
CHEM	5370	Environmental Chemistry I	Sources, transport, effects, fate, analytical chemistry, monitoring and management of chemical species; chemical principles, equilibria and reactions. Water and atmospheric pollution; acid rain, global warming, ozone.
CHEM	5371	Environmental Chemistry II	Inorganic metals and organic chemicals in the environment; energy sources; fossil fuels, nuclear power, fuel cells, and alternatives.
ECON	Economics		
ECON	6466	Environmental Economics	Economic analysis of environmental problems and corrective policy instruments. Topics covered will include the theory of externalities and public goods, the role of uncertainty and imperfect information in policy design, benefit-cost analysis, and non-market valuation. Applications to various environmental problems (such as air and water pollution, hazardous waste, and occupational health and safety) will be discussed.
EDCI	Education Curriculum and Instruction		
EDCI	5555	Environmental Education	Exploration of state, national, and international environmental issues and instructional approaches for developing student awareness, knowledge, and concern for the environment, K-12. Includes classroom and field study.
EDCI	5885	Introduction to Critical Pedagogy	Theory and practice in teaching for social justice with an emphasis on issues of class, race, gender and ethnicity.
EEB	Ecology and Evolutionary Biology		
EEB	5203	Developmental Plant Morphology	Exploration and analysis of diversity in plant form using basic principles of plant construction and development. A research paper is required, in which the principles learned in lecture are applied to the analysis of the development of a plant from seed through reproductive maturity.
EEB	5204	Aquatic Plant Biology	Field and laboratory-oriented study of the anatomy, morphology, ecology, physiology, systematics and evolution of vascular aquatic and wetland plants. A research paper and class presentation are required on a topic pre-approved by the instructor.
EEB	5220	Evolution of Green Plants	Evolution of morphological and genomic traits marking the conquest of land, the diversification of land plants, and the significance of plants in the evolution of life on earth, global climates and human civilizations. Laboratory session includes study of morphological and anatomical characters of extant and fossil plants, phylogenetic inference from morphological and molecular characters, and discussion of primary literature.
EEB	5254	Mammalogy	Lectures cover diversity, natural history (including behavior, ecology, reproduction, etc.), and evolution of mammals; readings from original literature are included. Laboratories cover anatomy, systematics, and distribution of major groups of mammals.

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EEB	5265	Herpetology	Lectures cover environmental physiology, ecology, and behavior of amphibians and reptiles. Emphasis is on readings from the original literature. Laboratories cover evolution, systematics, and distribution of major groups of the world.
EEB	5269	Social Insects	Classification, identification, economic importance, evolution and nomenclature of flowering plants. Laboratory compares vegetative and reproductive characteristics of major families. A research paper and class presentation are required on a topic pre-approved by the instructor.
EEB	5271	Systematic Botany	Classification, identification, economic importance, evolution and nomenclature of flowering plants. Laboratory compares vegetative and reproductive characteristics of major families. A research paper and class presentation are required on a topic pre-approved by the instructor.
EEB	5301	Population and Community Ecology	Overview of population and community ecology, including population regulation and dynamics, metapopulations, species interactions, biodiversity, community structure, and evolutionary ecology. Theoretical and case-history approaches, emphasizing plants, invertebrates, and vertebrates. Lecture, discussion, and exercises in analysis and modeling.
EEB	5310	Conservation Biology	Case studies and theoretical approaches to conservation of biological diversity, genetic resources, plant and animal communities, and ecosystem functions. Topics emphasize ecological and evolutionary principles that form the scientific basis of this emerging, interdisciplinary field, as well as socio-political, legal, economic, and ethical aspects of conservation.
EEB	5333	Evolutionary Developmental Biology	Advanced course in evolutionary biology, emphasizing the underlying developmental bases of evolutionary change. Concepts of homology, constraint, and heterochrony, with examples from both animal and plant systems.
EEB	5360	Functional Ecology of Plants	Physiological, morphological, and structural responses of plants to the physical and biotic environment and to environmental change. Readings, lectures and discussions emphasize plant responses at all levels of organization, from cells to whole plants. Themes include organismal integration, consequences and constraints in plant adaptation, and the functioning of plants within communities and ecosystems.
EEB	5369	Current Topics in Biodiversity	Analysis and discussion of current literature on biodiversity.
EEB	5370	Current Topics in Conservation Biology	Analysis and discussion of current literature on conservation.
EEB	5449	Evolution	A review of our current understanding of the patterns and processes of organic evolution. Class periods will include discussion and critical analysis of primary literature.
EEB	5500	Introduction to Natural History Collections	Training required for work in the EEB Biodiversity Research Collections Facility. The uses of natural history collections; policies, resources, and databases of the Collection Facility; specimen preparation and labeling; legal and ethical issues; threats to natural history collections.

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EEB	5881	Internship in Ecology, Conservation, or Evolutionary Biology	An internship with a non-profit organization, a governmental agency, or a business under the supervision of Ecology and Evolutionary Biology faculty. Activities relevant to the practice of ecology, biodiversity science, evolutionary biology, or conservation biology will be planned and agreed upon in advance by the job site supervisor, the faculty coordinator, and the intern.
EEB	5889	Research	Conferences and laboratory work covering selected fields of Ecology and Evolutionary Biology.
EEB	5894	Seminar	Study and discussion of current researches, books and periodicals in the field of Biology. Subtopic designations: Ec, Ecology; M, Mammalogy; Mec, Marine Ecology; Pr, Parasitology; En, Entomology; Bi, Biogeography; Ev, Evolution; Sy, Systematics.
EEB	6481	Seminar in Biodiversity	Provides the opportunity for students to present research plans, reports of work in progress, and full-length seminars on completed research projects in ecology, systematics, and evolutionary biology to a supportive but critical audience.
EEB	6482	Seminar in Spatial Ecology	Analysis and discussion of current literature in spatial ecology.
EEB	6484	Seminar in Plant Ecology	Analysis and discussion of current literature in plant ecology.
EEB	6485	Seminar in Comparative Biology	Analysis and discussion of current literature in evolution and comparative ecology.
EEB	6490	Seminar in Behavioral Ecology	Analysis and discussion of current literature in behavioral ecology.
EMBA	Executive MBA		
EMBA	5993	Sustainable Competitive Strategy	How to defend businesses against competitive challenges and environmental change while maintaining high ethical standards. Students focus on game theory, sustainability, and temporal tradeoffs to understand the effects of managerial choices on competitors, internal stakeholders, society and the future performance of the firm.
ENGL	English		
ENGL	6540	Seminar in Literature and Human Rights	The interdisciplinary study of literature and human rights discourse.
ENVE	Environmental Engineering		
ENVE	5252	Environmental Remediation	Regulatory framework. Soil clean-up criteria. Risk analysis. In situ and ex situ Treatment technologies: chemical oxidation, chemical reduction, pump-and-treat, permeable reactive barriers, solidification, stabilization, thermal processes, bioremediation.
ENVE	5530	Geoenvironmental Engineering	Principles of solid waste management; design of landfills and waste containment systems; compacted clay liners and slurry walls; site investigation, soil and groundwater sampling and testing; overview of soil remediation techniques.
ENVE	5810	Hydrometeorology	Global dynamics of aquatic distribution and circulation. Hydrologic cycle, atmospheric circulation, precipitation, interception, storage, infiltration, overland flow, distributed hydrologic modeling, and stream routing.

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ENVE	5811	Hydroclimatology	Focuses on the physical principles underlying the spatial and temporal variability of hydrological processes. Topics include atmospheric physics and dynamics controlling the water/energy budgets; global water cycle, its dynamics, and causes of variability/changes; occurrence of drought and flood; climate teleconnections and their hydrological application; hydrological impact of global changes; <u>quantitative methods in hydroclimatic analysis.</u>
ENVE	5812	Ecohydrology	Focuses on the interactions between ecological processes and the water cycle, emphasizing the hydrological mechanisms underlying various terrestrial ecological patterns and the ecological properties controlling the hydrologic and climatic regimes. Topics include conceptual understanding of hydrological cycle over vegetated land, quantifying and modeling flux exchanges in the soil-vegetation-atmosphere continuum, case studies on the hydrological impact of land use land cover changes, ecosystem response to environmental changes, and vegetation-climate feedback at the <u>regional and global scales.</u>
ENVE	5850	Sustainable and Resilient Water Governance and Management	Overview and assessment of water institutions and management approaches that contribute (or not) to sustainable and resilient water resources under changing climate conditions, demographic and economic shifts. Course requirements include translating scientific information for water managers or writing a publishable co-authored research paper.
GEOG	Geography		
GEOG	5220	Geography of Sustainable Development	Conceptualizing international development; understanding theories, strategies and ideologies of development; and use of case studies to understand development in practice. Emphasis placed on the concept of sustainable development and sustainability, grassroots-driven approaches to development, the role of women, and geographic explanations as to how and why uneven development has occurred.
GEOG	5310	Advanced Fluvial Geomorphology	
GEOG	5560	GIS and Environmental Geography	Applicability of Geographic Information Systems to solve environmental problems. Case studies address environmental assessment and monitoring, analysis and modeling, planning and management.
GEOG	6820	Advanced Topics in Regional Analysis	Analysis and discussion of current literature in Regional Analysis.
GEOG	6830	Advanced Topics in Population Geography	Analysis and discussion of current literature in Population Geography.
GEOG	6840	Advanced Topics in Urban Geography	Analysis and discussion of current literature in Urban Geography.
GEOG	6850	Advanced Topics in Geography of Public Policy	Analysis and discussion of current literature in Geography of Public Policy.
GEOG	6860	Advanced Topics in Economic Geography	Analysis and discussion of current literature in Economic Geography.
GEOG	6870	Advanced Topics in Physical Geography	Analysis and discussion of current literature in Physical Geography.

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GEOG	6880	Advanced Topics in Environmental Geography	Analysis and discussion of current literature in Environmental Geography.
GSCI	Geoscience		
GSCI	5550	Physics of the Earth	The composition, structure, and dynamics of the earth's core, mantle, and crust inferred from observations of seismology, geomagnetism, and heat flow.
HIST	History		
HIST	5218	Historical Conceptions of Race and Science	Historical examination of the interplay between concepts of race and scientific naturalism as they emerged in the eighteenth, nineteenth, and twentieth centuries. Attention also paid to political and social contexts.
HIST	5543	Social Change in 19th Century America	Major sources of social change in 19th-century United States, including legacy of the American Revolution; fate of Native America; rural society; slavery; industrialization; immigration; class formation; race; the impact of Civil War and Reconstruction.
HIST	5544	American Land and Society	Examines the historical literature on American ideas about landholding and agriculture from the 18th to the 20th century and their impact on society, culture, and the environment.
HRTS	Human Rights		
HRTS	5254	Managing the Future of Social Enterprise	Developing and managing market-based approaches to global human rights and social issues. Strategizing how companies create value both for society and business, including role of for-profit businesses as agents for positive social impact in changing legal, regulatory, policy, and market environments. Regulatory and business strategies that serve markets and promote long-term economic viability, sustainability, and human rights. Managerial perspectives on social innovation, statutory benefit corporations, corporate social certifications, social investment, shared value, strategic philanthropy and business opportunities serving emerging markets.
HRTS	5301	Contemporary Debates in Human Rights	Key Debates in Human Rights will introduce students to the main modern debates in the academic field of human rights. It is interdisciplinary in scope, including recent intellectual contributions from philosophy, law, political science, sociology, anthropology, literature and history. It will address a number of central issues and questions, including the normative philosophical foundations of human rights, whether human rights are universal or relative, whether human rights can be held collectively, and the justifications for women's rights and cultural rights.
HSA	Humanitarian Services Administration		
HSA	5312	Issues in Humanitarian Studies	Examines current issues of Global Human Development from the perspective of non-governmental organizations (NGOs), private voluntary organizations, international organizations (IOs), multi-governmental aid and humanitarian assistance agencies, the U.S. military and government sponsored aid organizations. Students gain a comprehensive, multidisciplinary understanding of issues facing these organizations and stresses that are currently forcing many to reevaluate their current policies and procedures.

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HSA	5325	Advocacy and Grassroots Development	Addresses the importance of advocacy in the sustainable development process. Introduces the concept of advocacy, its role and functions in sustainable development and empowerment. Students will be given the opportunity to explore ways and means to develop effective advocacy programs.
HSA	5332	International Human Rights	Addresses the evolution of international human rights and of the legal instruments designed for their promotion and protection. It will study the theoretical foundations of the idea of human rights in various civilizations and cultures, evaluate its legacy within the western and non-western traditions, and examine its meaning and relevance in the contemporary world.
HSA	5377	Environmental Compliance and Regulations	Compliance and knowledge of a whole new generation of environmental regulations is required of all managers. This course begins with general compliance obligations, common law, trespass, nuisance and negligence. The major federal environmental laws affecting companies and agencies are reviewed along with even more stringent state and local regulations. Also presented is a view of the severe civil and criminal penalties liabilities attached to environmental regulations, and a discussion of the sharply increasing punishments for non-compliance. The final section of the course will outline strategies for compliance with specific comments on proactive environmental management as a method for reducing legal exposure from environmental issues. This is required of managers and it empowers private citizens.
MGMT	Management		
MGMT	5639	Diversity and Inclusion	The globalization of product, labor, and capital markets has led to significant changes in the demographic composition of the international labor force. This course chronicles and examines the transition that is taking place in the global workforce due to the increased diversity in employees on the basis of personal characteristics such as sex, race/ethnicity, and national origin. Examines how employers respond to these new workforce realities and how workforce inclusion strategies can contribute to positive outcomes for employers, employees and their families, and other stakeholders.
MARN	Marine Science		
MARN	5014	Marine Phytoplankton Ecology and Physiology	The physiology of marine phytoplankton, environmental factors affecting their growth and photosynthesis in the ocean, the oceanographic processes responsible for the temporal and spatial distributions of phytoplankton biomass and production, and current topics in phytoplankton research.
MARN	5017	Plankton Ecology	Ecology of planktonic organisms (bacteria, protista and metazoa). The evolutionary ecology concept, methods of research, special features of aquatic habitats; adaptations to aquatic environments; population biology; predation, competition, life histories, community structure, and role of plankton in ecosystem metabolism.

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MARN	5018	Ecology of Fishes	General concepts in fish ecology such as distribution, feeding, bioenergetics, growth, larval fish ecology, biotic interactions, life history evolution and other contemporary research topics.
MARN	5032	Coastal Pollution and Bioremediation	Overview of processes and compounds leading to pollution in the nearshore marine environment. The impact of pollution on the marine food web and its response is emphasized. Alleviation of pollution through metabolism of organisms, including bacteria, seagrasses and salt marshes.
MARN	5033	Marine and Atmospheric Processes of Global Change	Fundamentals of marine and atmospheric processes in global biogeochemistry. Evaluation of atmospheric, biological and chemical processes that contribute to global change.
MARN	5066	River Influences on the Marine Environment	Influences of rivers on estuaries, coastal and open ocean water properties, energy budgets and ecosystems including inputs of buoyant waters, sediments and pollutants and variability from storms, seasons, human alterations and climate change. Recommended preparation: calculus and general physics.
MARN	6010	Advanced Biological Oceanography - Pelagic Processes	Pelagic communities, ecosystem structure and function, bioenergetic constraints, population dynamics, consequences of global climate and environmental change, and advances in the field driven by technological innovation.
NRE	Natural Resources and the Environment		
NRE	5155	Principles of Nonpoint Source Pollution	An advanced investigation of sources, impacts, modeling and management of nonpoint sources of water pollution.
NRE	5200	Sustainable Natural Resources Management	Explores social-ecological systems, including relationships between ecosystem services and human well-being and livelihoods; introduces systems theory for understanding disturbance, feedbacks, thresholds, directional change, adaptation and resilience in social-ecological systems; includes applied case studies in sustainable agriculture, fisheries, forestry, freshwater, marine, and wildlife.
NRE	5220	Environmental Planning for Sustainable Communities and Regions	Principles of environmental planning with application to human health, natural areas, working landscapes, and built environments; basis and context for planning, including laws, regulations, zoning, compliance, uncertainty, and risk management.
NRE	5252	Physiology and Ecology of Trees	An examination of the interactions between trees and their environment at the molecular, individual and forest stand scales. Lectures and reviews of current research span at least two spatial scales of organization for each course topic. Course topics include tree carbon balance, water relations, mineral nutrition, morphology, genomics, phenology, climate change and modeling.
NRE	5325	Wildlife Management	The application of ecological principles as practiced by natural resource agencies throughout North America.
NRE	5335	Advanced Stream Ecology	Introduction to the current state of knowledge and research in rivers and streams. Topics include both basic structure and function of stream habitats and biotic assemblages as well as branch into the management and conservation applications of ecological information.

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NRE	5461	Landscape Ecology	Interdisciplinary focus on the effect of landscape pattern on environmental processes and conditions and the influence of disturbance and underlying geomorphology on landscape pattern. Consideration of landscape ecology principles in planning and management of pattern and processes in which conservation and production land uses are intermingled.
PUBH	Public Health		
PUBH	6493	Occupational and Environmental Health: Exposures, Risk and Prevention	
SOCI	Sociology		
SOCI	5471	Energy, Environment, and Society	Sociological perspectives on energy production, distribution and consumption; environmental impacts and constraints; Iternative energy and environment futures; and cross-national studies of policy formation and implementation.

Graduate Courses Related to Sustainability			
Department	Course Number	Course Name	Description
ACCT	Accounting		
ACCT	5545	Business Law, Business Ethics, and Public Accounting	This course covers the major legal and ethical issues in business and their significance for the accounting profession and related stakeholders. Included among the topics are the tension between profit and the public interest, corporate responsibility to society, environmental concerns, consumer and employee relations, confidentiality, whistle blowing, advertising and hiring practices.
ACCT	5563	Enterprise Risk Management: Identifying Events as Risks to Manage or Opportunities to Seize	Provides students with the ability within the COSO framework to identify events that may impact a nonfinancial publicly traded enterprise's ability to realize value for its stakeholders using the concept of the triple bottom line of profit, people, and planet. Events will be evaluated as risks that have negative impacts and opportunities as well as potential positive impacts. ERM techniques applied in the course will include: risk control, business continuity, reputation risk, supply-chain management, compensation system alignment, and strategic decisions.
AH	Allied Health		
AH	5351	Contemporary Nutrition Issues and Research	Critical thinking and application of research to contemporary issues in food and nutrition applied to clinical nutrition and community/public health nutrition. Learning occurs through classroom discussions, self-exploration through reading and applying scientific studies to issues, and participation in a research project.

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AH	5360	Cross Cultural Health Care	Exploration of the relationships between culture/ethnicity and health status, health care beliefs and behaviors. Develops greater understanding of, and sensitivity toward the patient's way of life utilizing case examples from the United States and international settings.
AH	5501	International Health	This course will examine international health challenges. Through case studies, other appropriate readings, and individual research students will gain a comprehensive understanding of global health related challenges (medical, economic and cultural), including children's health, women's health, communicable diseases, and non-communicable diseases.
AH	5502	Complex Humanitarian Emergencies Seminar	This seminar offers an in-depth examination of both theoretical and applied aspects of complex humanitarian emergencies. It provides students with a comprehensive, multidimensional understanding of the needs of displaced persons and systems and practices currently in place to meet these needs.
AH	5700	Ethical Considerations in Genetic Testing and Research	Conceptual and philosophical analysis of ethical issues specific and special to genetic testing and research. Presentations, case studies and readings will provide responsible conduct in research training and allow for analysis of World Wide Web genomics, access to genetic information, privacy and confidentiality, ownership, personal and societal perceptions, reproduction, utility and limitations of genetic data, education of physicians and patients, treatment versus enhancement, regulation and reimbursement, and other time-relevant issues.
ANSC	Animal Science		
ANSC	5618	Probiotics and Prebiotics	Biology, uses, effectiveness and safety of probiotics and prebiotics. Molecular mechanisms underlying the health benefits attributed to the consumption of pre and probiotics. Application of pre and probiotics to promote human and animal health, including safety and regulation. A background in general microbiology or concurrent registration in a microbiology course is recommended.
ANTH	Anthropology		
ANTH	5308	Human Evolutionary Theory	Evolutionary concepts applied to human body size and shape, diet, disease, group composition, and reproductive behavior.
ANTH	5309	Violence, Stress, and Social Support	This seminar surveys theory and observations bearing on the nature, sources and consequences of traumatic stress, stressors, and social support in human populations.
ANTH	5315	Gender and Culture	Anthropological perspectives on the analysis of gender with special focus on dynamics of gender, culture, and power.
ANTH	5364	New England Prehistory	Topics in the prehistory of New England. Regional chronology and cultural history, early Holocene adaptation, ecology of hunter-gatherers, coastal adaptations, development of horticulture, and the evolution of tribal societies.
ANTH	5374	Culture, Power, and Social Relations	Power, cultural evolution, and social change; law, global relations, identity and ethnicity, revolution and revitalization, the power of numbers, parents and children, women and men.

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ANTH	5390	Cultural Rights	Politics of culture and cultural rights, minority rights, indigenous rights, multicultural policies, race, difference and law, cosmopolitanism, globalization and human rights.
ANTH	5391	Human Rights in a Diverse World	Basic issues, methods and theories in the anthropological study of human rights; cultural relativism, the international human rights system, social movements, transnational activist networks, media and representation are studied in their relationship to rights claims, adjudication, and outcomes.
ANTH	5522	Ecological Anthropology	Interdisciplinary study of human ecology integrating ecological and anthropological theory with archaeological, historical, and contemporary case studies.
ANTH	5708	Plants and People Through the Ages	Survey of the dynamic relationship between plants and people using an inter-disciplinary approach. Readings draw from anthropology, archaeology, botany, ecology, history, and agricultural and environmental sciences.
ARE	Agriculture and Resource Economics		
ARE	5252	Planning for Economic Development	Insight into domestic and international economic policy dynamics relevant to economic development as well as application of critical organizational skills to the development of a grant proposal and project development and management. Students are required to use theoretical, methodological and practical applications to sustainable economic development covered in previous courses.
ARE	5464	Benefit-Cost Analysis and Resource Management	Theoretical foundations and applications of benefit-cost analysis in project appraisal and in evaluation of public policies regarding resource management and environmental protection.
ARE	5992	Practicum in Economic Development	Project-based fieldwork with an approved partnering organization related to sustainable economic development, including agribusiness management, marketing and financial analysis, food systems, and economic development.
ARE	6464	Experimental Methods for Program Evaluation	Theory and practice of field-based program experiments, often referred to as randomized controlled trials (RCTs). All aspects of experimental program evaluation, including the design of evaluation strategy and working with survey and program staff. Examples from both developing country contexts and Western country program evaluation.
ARE	6495	Graduate Research Seminar	Participation in research seminars presented by invited scholars and departmental faculty. This course can be repeated to a maximum of 12 credits.
BADM	Business Administration		
BADM	5170	Foundations of Economic Environments	Provides students with applied knowledge of key economic and psychological concepts that ground interactions among individuals and organizations in the global business environment.

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BASC		Basics	
BASC	5301	Special Populations	The goal of the course is to provide an opportunity for students to understand and to critically analyze human oppression and issues that are relevant to social work practice methods. The course will examine demographic, economic, political, social and cultural forces operating at national and local levels highlighting the African-American and Puerto Rican experiences and perspectives. The focus of the class is the application of the knowledge of special populations to the social work practice methods. The course will combine lectures by the instructor and invited speakers, and class discussions. At times, small groups will be used to encourage students to examine their personal and professional interactions with oppression, and to discuss their implications for social work practice.
BLAW		Business Law	
BLAW	5175	Business Law, and Ethics in Modern Society	This course examines the formulation, interpretation, and application of law to business. It incorporates the study of ethical issues that arise in contemporary business settings, including professional conduct and corporate social responsibility. This course covers major areas of legal regulation to which businesses are subject, including tort liability, contract law, partnership and corporate law, employment and labor law, intellectual property law, environmental regulation and sustainability, and financial regulation. Emphasis is placed on active, experiential application of legal reasoning and analysis and on the global and comparative dimensions of legal and ethical issues.
BLAW	5181	Government and Legal Environment of Business	Introduces the essential functions and roles of the legal environment of business. The fundamentals of the legal and ethical environment of business are explored, including legal institutions and legal process. Intentional torts and negligence, common, statutory and administrative law, and alternative dispute resolution. Selected topics in the legal environment of business are also examined, including employment law, securities law, and intellectual property.
BLAW	5182	Business Responsibility, Accountability and Ethics	Examines the essentials of legal astuteness, enabling students to ensure regulatory compliance, manage legal counsel, minimize liability and reach value-added business decisions in an increasingly complex regulatory environment. Examines the leading societal issues relevant to a firm's responsibilities toward its business environment. Topics covered include fairness in the workplace, corporate governance, bribery and corruption, corporate responsibility, and firm-regulator relations. Pillars of responsible business conduct are also introduced in order to develop to values-driven decision-making skills in the social and ethical environment of business.

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BLAW	5660	International Business Law	This course examines major issues in international law by focusing primarily on the extensive legal and ethical environment of the modern international marketplace. Key topics to be explored include jurisdiction, international dispute resolution, contract law and the international sale of goods, intellectual property, employment, and environmental issues. The course will also help students understand key institutions in the international legal system and learn about current legal topics related to international trade and foreign investment.
BME	Biomedical Engineering		
BME	5700	Biomaterials and Tissue Engineering	A broad introduction to the field of biomaterials and tissue engineering. Presents basic principles of biological, medical, and material science as applied to implantable medical devices, drug delivery systems and artificial organs.
CE	Civil Engineering		
CE	5030	Seminar in Transportation and Urban Engineering	Extended discussions on presentations contributed by staff, students and outside speakers. Required every semester for all full-time students in the Transportation and Urban Engineering Area of Concentration in the Civil Engineering Field of Study.
CE	5240	Biodegradation and Bioremediation	Biochemical basis of the transformation of key organic and inorganic pollutants; quantitative description of kinetics and thermodynamics of pollutant transformation; impact of physiochemical and ecological factors on biotransformation.
CE	5530	Advanced Soil Mechanics	Introduction of soil as a multi-phase material; stress and strain analysis in soil; soil compression and consolidation; shear strength of sand and clay; critical state soil mechanics; advanced topics in complex constitutive relationships; introduction to fracture mechanics; term paper.
CE	5541	Advanced Soil Mechanics	Introduction of soil as a multi-phase material; stress and strain analysis in soil; soil compression and consolidation; shear strength of sand and clay; critical state soil mechanics; advanced topics in complex constitutive relationships; introduction to fracture mechanics; term paper.
CE	5542	Earthquake Engineering	Global tectonics and earthquake sources, seismic wave propagation, strong ground motion analysis, seismic hazards, site effects and liquefaction, seismic load to slopes, retaining structures and foundations, structure response to dynamic loads; term paper.
CE	5543	Advanced Foundation Design	Soil behavior in retaining systems, shallow foundations, deep foundations.
CE	5810	Hydrometeorology	Global dynamics of aquatic distribution and circulation. Hydrologic cycle, atmospheric circulation, precipitation, interception, storage, infiltration, overland flow, distributed hydrologic modeling, and stream routing.
CE	6740	Traffic Engineering Operations	Driver, pedestrian and vehicle operating characteristics. Traffic data collection. Accident and safety analysis. Highway capacity analysis. Traffic signs and markings. Traffic signal timing and operation. Traffic management.

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CHEG	Chemical Engineering		
CHEG	5358	Composite Materials	An introduction to the mechanical properties of fiber reinforced composite materials. Included are discussions of the behavior of unidirectional composites, short fiber composites and laminates. Special topics such as fatigue, fracture and environmental effects are also included.
CTRL	Clinical and Translational Research		
CTRL	5497	Minority Health and Health Disparities	Health outcomes in the U.S. vary dramatically as a function of race and ethnicity. The course will highlight research that explores this issue from social, behavioral and psychological perspectives, as well as physical environment and biological perspective. The course will discuss ideas about the meaning of race and ethnicity in American society.
COMM	Communications		
COMM	5770	Health Communication	Overview of health communication, including health behavior change interventions, emergency communication, risk assessment, media influences, provider-patient communication, socialization and identity, stereotyping, social support, diverse populations, and new communication technologies.
CSE	Computer Science and Engineering		
CSE	5860	Computational Problems in Evolutionary Genomics	Computational and algorithmic approaches for problems arising in evolutionary genomics. Topics may include phylogenetic trees inference, population evolutionary models and theory, understanding complex evolutionary processes and other related topics. Both combinatorial optimization and stochastic approaches will be covered.
ECON	Economics		
ECON	5102	American Economic History	History of economics in America.
ECON	5128	Economic Rights	Explores the conceptual bases, measurement, and policy applications of economic rights. Specific topics will include: child labor, the right to development, non-governmental initiatives, and the institutionalization of economic rights (e.g., constitutionalization versus statutory implementation versus discretionary policies).
ECON	5201	Microeconomics	Beginning graduate microeconomics covering consumer and producer theory, price determination, economic efficiency, and welfare analysis.
ECON	5202	Macroeconomics	Survey of the field: its historical foundations and development, conceptual framework, and application to current macroeconomic problems.
ECON	5348	Economic Development Policy	The role of government in the economic development of underdeveloped countries. Topics include alternative paradigms of development and the resulting place for government in the economy; the theory, institutions, and policies of government in planning, fiscal, and monetary concerns; analysis of policy instruments influencing international trade and financial flows; and the influence of international organizations on the development process.

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ECON	5421	International Trade: Theory and Policy	The economic aspects of international relations, including the pure theory of international trade and the instruments of commercial policy. Topics include comparative advantage; international economic policies; and regional economic integration.
ECON	5441	The Labor Market	A thorough examination of the labor market. Topics include human capital, wage determination, public policy, and money wage rates.
ECON	5473	Economic Development	An examination of the problems facing the less developed nations. Comparisons of alternative paradigms of economic development (orthodox to political economy) and the strategies and policies they imply.
ECON	5474	Seminar in Development and Growth	A continuation of ECON 5473. Topics include agriculture and industry in development, investment criteria, essentials of developing planning, the promotion of domestic saving and fixed investment, foreign aid, improvements in international trade, and human capital formation.
ECON	6441	Advanced Labor Economics I	Labor supply with an emphasis on the family. Applications in the area of demography, development, and health.
ECON	6442	Advanced Labor Economics II	Labor demand and other applied topics in labor economics.
ECON	6466	Environmental Economics	Economic analysis of environmental problems and corrective policy instruments. Topics covered will include the theory of externalities and public goods, the role of uncertainty and imperfect information in policy design, benefit-cost analysis, and non-market valuation. Applications to various environmental problems (such as air and water pollution, hazardous waste, and occupational health and safety) will be discussed.
ECON	6473	Economic Development: Microeconomic Issues	Overview of current literature on microeconomics of development, including human capital, internal structure of households, functioning of factor markets, and the role of institutions in mediating change.
EDCI	Education Curriculum and Instruction		
EDCI	5040	Popular Music and Informal Education	Exploration of how popular music intersects with education, including the production and consumption of popular music and use of related informal pedagogies. Critical theory, cultural theory, feminism, and race studies will be used to explore these issues. Methods in “popular music”.
EDCI	5885	Introduction to Critical Pedagogy	Theory and practice in teaching for social justice with an emphasis on issues of class, race, gender and ethnicity.
EDCI	5875	Multicultural Education	Interrelationships between education and various sociocultural aspects of cultural diversity and cultural pluralism, including language acquisition and diversity.
EDCI	5895	Language Ideology & Education	Interrelationship among language, ideology, education and society, including examination of issues of social classes, ethnicity, gender, social context, power, and politics. Also covered are literacy, language prescriptivism and standardization, language policy and discourse in critical perspective. Principles of second language acquisition.

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EDLR Educational Leadership			
EDLR	5119	The Law, Ethics, and Decision-making in Student Affairs	Survey of case law and statutory provisions related to higher education with a focus on student affairs administration. Students will develop an understanding of ethical decision-making and its application to relevant student affairs scenarios.
EDLR	6467	Social Justice Leadership, Equity and School Change	Exploration of various tenets, theoretical tensions, and transformative applications of social justice leadership in American education.
EEB Ecology and Evolutionary Biology			
EEB	5200	Biology of Fishes	Introduction to the biology of fishes, with an emphasis on adaptation and evolutionary diversification. Topics include the evolution of major groups, morphology, physiology, behavior, and population and community ecology. Lectures, critical discussions of current journal articles, student presentations, and exercises in the field and laboratory. A research paper and class presentation are required on a topic pre-approved by the instructor.
EEB	5240	Biology of Bryophytes and Lichens	Diversity, evolution, ecology, development and taxonomy of the bryophytes (mosses, liverworts, and hornworts) and lichen-forming fungi.
EEB	5250	Biology of Algae	Laboratory and field-oriented study of the major groups of algae, emphasizing structure, function, systematics, and ecology.
EEB	5335W	Vertebrate Social Behavior	Lectures and discussions dealing with various aspects of vertebrate social behavior, including territoriality, mating systems, sexual selection, and group behavior. The emphasis is on reading and critical analysis of original literature.
EEB	5347	Principles and Methods of Systematic Biology	Basic concepts and modern procedures employed in systematic biology: literature retrieval, species description, phylogenetic inference, nomenclature, and current conceptual issues. Laboratories include computer techniques in phylogenetic analysis.
EEB	5477	Insect Phylogeny	A review of our current understanding of the evolutionary relationships of the major orders and families of insects, including the phylogenetic position of Insecta within Arthropoda.
EEB	6480	Seminar in Vertebrate Biology	Analysis and discussion of current literature in vertebrate biology.
EEB	6483	Seminar in Marine Biology	Analysis and discussion of current literature in marine biology.
EEB	6486	Seminar in Systematics	Analysis and discussion of current literature in systematic biology.
EEB	6487	Seminar in Parasitology	Analysis and discussion of current literature in parasitology.
EMBA Executive MBA			
EMBA	5191	Value Creation and Competition	Students analyze the challenges inherent in navigating competitive markets with the objective of adopting strategies to achieve value creation, and assess the fit between internal capabilities and the competitive landscape to identify and plan for potential threats and opportunities from environmental change.
EMBA	5541	Domestic and Global Macroeconomics	Domestic and global monetary policies, factors spurring economic growth and decline, trade balance and the macro level effects of trade imbalances in developed and emerging markets, as well as employment policies.

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EMBA	5603	Global Business Issues	Students become better versed in international business challenges, understand issues related to transnational and cross-cultural management, and examine global issues relative to their company. Students participate in an international trip to gain first-hand experience in the dynamics of international business management, engage with in-country business executives across multiple industries and functional areas, and execute a business challenge project in a foreign country.
ENVE	Environmental Engineering		
ENVE	5090	Advanced Topics in Environmental Engineering	Classroom or laboratory courses as announced for each semester.
ENVE	5094	Seminar in Environmental Sciences and Engineering	Extended discussions on presentations contributed by staff, students and outside speakers. A certificate of completion will be issued from the Environmental Engineering Program.
ENVE	5221	Transport and Transformation of Air Pollutants	Transport and deposition of gaseous and aerosol pollutants; chemical formation and reactions of oxidants and acidic compounds.
ENVE	5240	Biodegradation and Bioremediation	Biochemical basis of the transformation of key organic and inorganic pollutants; quantitative description of kinetics and thermodynamics of pollutant transformation; impact of physiochemical and ecological factors on biotransformation.
ENVE	5310	Environmental Transport Phenomena	Development and solutions of partial differential equations describing diffusion, advection, and sources/sinks common to transport of mass, energy, and momentum. Mass sources/sinks used to describe sorption and chemical reaction. Extension to dispersion and turbulent mixing. Applications to <u>predicting the movement of environmental contaminants.</u>
ENVE	5311	Environmental Biochemical Processes	Major biochemical reactions; stoichiometric and kinetic description; suspended and attached growth modeling; engineered biotreatment systems for contaminant removal from aqueous, gaseous, and solid streams; <u>process design.</u>
ENVE	5821	Vadose Zone Hydrology	Theoretical and experimental elements of primary physical and hydrological properties of porous media and processes occurring in partially-saturated soils. Practical experience in measurement and interpretation of hydrological information and methods of analysis for vadose-zone related environmental problems.
EPSY	Educational Psychology		
EPSY	5119	Policy, Law, and Ethics in Special Education	The impact of policy and law on the professional role of special educators.

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FNCE		Finance	
FNCE	5151	Introduction to Economic Markets	Provides a foundation in the economics of markets, with particular application to financial markets and the role of information. Specific topics include the following: (1) the basic principles of supply, demand, profit maximization, price determination, international trade, and exchange rates; (2) the basic structure of modern, global financial markets, as an application of the basic economic principles; (3) the use of information and information technology in financial markets, including use of the internet, Bloomberg, Dow Jones and other computerized sources of information; and (4) a review of the “efficient market hypothesis.”
GEOG		Geography	
GEOG	5110	Regional Development and Policy	A study of theory and practice in regional development and planning. Emphasis on evaluation of regional problems and public policies designed to resolve them, with a primary focus on the United States.
GEOG	5140	Geographical Analysis of Social Issues	Focus on geographical perspectives toward research on selected social issues, with an emphasis on methods of behavioral analysis and relevant social geographical concepts such as social space, activity spaces and time-space budgets, and diffusion.
GEOG	5230	Advanced GIS for Remote Sensing for Geoscience Applications	Research methods for using Geographic Information Systems, remote sensing, and image interpretation to investigate problems in geoscience. Includes research techniques for data acquisition, processing and analysis of Digital Elevation Models and satellite imagery. Geologic materials, processes, landforms and landscapes.
GEOG	5290	Advanced Urban Geography	Analysis of social and economic patterns within urban areas, with emphasis on individualized research. The implications for planning are stressed.
GEOG	5390	Advanced Physical Geography	Problems involving the application of physical processes in our changing environment.
GEOG	5520	GIS Modeling of the Urban Environment	Survey of GIS methods and spatial analysis for studying spatial patterns of land use and human activity in an urban environment.
GEOG	5700	Contemporary Europe: A Geography	An introduction to the peoples, countries, and landscapes of Europe (excluding the republics of the former U.S.S.R.). Emphasis on the economic, political, and social forces both maintaining national identities and shaping a united Europe
GSCI		Geoscience	
GSCI	5510	Applied Geophysics for Geologists and Engineers	Introductory survey of surface and borehole geophysical methods and their application to hydrogeologic, environmental monitoring, and geotechnical engineering studies. Laboratory involves geophysical field measurement, data reduction and geologic interpretation.
GSCI	5520	Exploring and Engineering Seismology	Theory of elasticity applied to wave propagation: equations of motion; reflection and refraction of elastic waves; velocity analysis and fundamental petrophysics; and principles of detecting subsurface interfaces and structures.
GSCI	5530	Applied and Environmental Geophysics	Potential theory (gravity, static electricity and magnetic fields), electromagnetic coupling, Maxwell’s equations; electromagnetic wave propagation; principles of detection of subsurface interface and structures by geophysical methods.

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GSCI	5710	Advanced Hydrogeology	Transport processes in groundwater systems. Mathematical methods in groundwater hydrology. Water quality and resource evaluation.
GSCI	5720	Groundwater Modeling	Numerical techniques for modeling flow and contaminant transport in groundwater systems. Model design, calibration, visualization, verification and sensitivity analysis. Application to field sites.
GERM	German		
GERM	5314	German Studies	Exploration of the field of German Studies as an “interdiscipline”; nalysis of a coherent body of material drawn from the social sciences, humanities, natural sciences, or other fields that helps to illuminate the German-speaking world.
GPPS	Graduate Program in Professional Studies		
GPPS	5325	Issues in Economic Development	Economic, social, and demographic change in those countries comprising the less wealthy regions of the South. It examines development from linear (neoclassical), structuralist (political economy), and other perspectives, and emphasizes relationships between “advanced”and “developing” countries within the context of the global economy. In addition to theoretical grounding, the course provides practice in preparing development profiles of individual countries.
HCMI	Healthcare Management and Insurance Studies		
HCMI	5243	Health Care Economics	Demonstrates how various economic theories can be used to think about health care issues and takes a macro or industry perspective of various health care problems and policy questions. Students are provided with a set of economic tools to evaluate a theoretical or empirical argument relating to health or medical care. Culminates with an in-depth analysis of the structure, conduct, and performance of the markets for medical insurance, physician services, hospital services, pharmaceutical products, and long-term care. Health care reform is also discussed.
HIST	History		
HIST	5505	Gender in the Early Modern West	Discussion of key works on gender, women, and sexuality, spanning the 1400s-1700s with a geographical focus mostly on Britain, continental Europe, and the Americas.
HIST	5540	Topics in American Social and Cultural History, 1600-1876	Major themes in the recent scholarship of social and cultural history: community and communication; family and gender; race, class, and industrialization; religion; and slavery.
HSL	Homeland Security Leadership		
HSL	5315	Contemporary Issues in Homeland Security Leadership	Supports the overarching goals of the Homeland Security Leadership program by providing an intellectual framework for engaging in ongoing self-directed learning within the Homeland Security domain; evolving a cadre of leaders across the Homeland Security continuum who share substantive skills in analysis, interpretation, policy development, and administration of approved policy; and to complement other more operationally oriented training programs.

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HDFS Human Development and Family Studies			
HDFS	5020	Culture, Health, and Human Development	Introduction to current interdisciplinary approaches to the study of human development and health in the context of culture. An overview of theoretical approaches; presentations of current research by invited speakers, focusing on how to combine disciplinary perspectives and methods in order to build a new integrative science of health and development across and within cultures.
HDFS	5021	Culture, Health, and Human Development	Introduction to current interdisciplinary approaches to the study of human development and health in the context of culture. An overview of theoretical approaches; presentations of current research by invited speakers, focusing on how to combine disciplinary perspectives and methods in order to build a new integrative science of health and development across and within cultures.
HDFS	5031	Culture, Health, and Human Development Project	Group discussion and guidance through planning, implementation, and write-up of a publishable research project in fulfillment of a core requirement for the Graduate Certificate in Culture, Health, and Human Development.
HDFS	5442	Latino/a Health Disparities	Overview of health and health care issues among Latina/os in the United States with particular focus on health disparities.
HDFS	5550	Social Policy, Law, and Child Welfare	Application of theory and research on child development, family relations, and intervention/prevention practices to legal, policy and child welfare contexts.
HRTS Human Rights			
HRTS	5390	Economic Rights	Explores the conceptual bases, measurement, and policy applications of economic rights. Specific topics will include: child labor, the right to development, non-governmental initiatives, and the institutionalization of economic rights (e.g., constitutionalization versus statutory implementation versus discretionary policies).
HRTS	5899	Seminar in Human Rights	Variable topics in the study of human rights.
INTS International Studies			
INTS	5000	Seminar in International Studies	Combines the various disciplines that constitute International Studies. Includes Social Sciences, Humanities, and Development Studies (development economics and administration). Area Studies faculty from relevant departments will conduct the individual seminar sessions. Introduces concepts and theoretical issues of the fields, including research approaches and the formulation of research questions.
MGMT Management			
MGMT	5181	Value Creation and Competition	Analysis of the challenges inherent in navigating competitive markets with the objective of adopting strategies to achieve value creation, and assess the fit between internal capabilities and the competitive landscape to identify and plan for potential threats and opportunities from environmental change.

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MGMT	5420	Employee and Labor Relations	Examines the broad range of concepts and practices that arise out of the relationship between an organization and its employees. Covers the core topics of labor relations, including organizing, collective bargaining, and the grievance process. Examines trends in unionization and the impact of these trends on employees and organizations. Also examines broader employee relations issues such as managing diversity, arbitration/mediation, downsizing, performance appraisal, implied contracts, and statutory rights.
MGMT	5800	Strategy, Policy, and Planning	Capstone course dealing with the two major aspects of strategy: formulation and implementation. Strategy formulation examines such issues as environmental threats and opportunities, the values and priorities of management and societal stakeholders, and the strengths of company resources and competencies relative to principal competitors. Strategy implementation covers such topics as strategic leadership, organizational structure, resource allocation, and building a strategy-supportive culture. Uses cases and readings to develop the knowledge and skills necessary to prepare students to deal with strategic issues. The student must have completed basic courses in the functional areas of business in order to be ready to assume the holistic perspective required of those who address this important topic.
MARN	Marine Sciences		
MARN	5010	Biological Oceanography	Structure and function of marine food webs, from primary producers to top trophic levels; interaction of marine organisms with the environment; energy and mass flow in food webs; elemental cycling; coupling between pelagic and benthic environments.
MARN	5012	Marine Invertebrate Biology	Comparative examination of major adaptations and functional responses of marine invertebrates to biotic and abiotic factors in the marine environment. Field trips required.
MARN	5015	Molecular Approach to Biological Oceanography	Principles and technology in nucleic acid purification and manipulation, DNA fingerprinting, gene cloning and sequencing, phylogenetic analysis, and detection of gene expression (mRNA and protein). Application examples in marine ecological studies.
MARN	5016	Marine Zooplankton	Bioenergetics, life history, population and community ecology of zooplankton, and role of zooplankton in aquatic biogeochemical cycles.
MARN	5030	Chemical Oceanography	Composition, origin and solution chemistry of seawater and the marine biogeochemical cycles of salts, elements and gases. Distributions and transfer in the marine environment through chemical equilibria, rates, redox, partitioning, ocean circulation, biological cycles and crustal exchanges.
MARN	5031	Aqueous Geochemistry	Application of chemical theory (thermodynamic equilibrium approaches and kinetics) to understanding the geochemistry of the Earth's aqueous systems, with a focus on the ocean and coastal ecosystems.
MARN	5036	Advanced Chemical Oceanography	Major global biogeochemical cycles of the major elements, nutrients, gases, organic matter, and trace elements and the impact of climate change and ocean acidification. Biogeochemical cycling of toxic trace metals, and transfer of substances at the air and sediment interfaces.

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MARN	5050	Geological Oceanography	Concepts in geological oceanography, including the role of plate tectonics in the control of the Earth and ocean system, fundamentals of biosphere-geosphere interaction over geologic timescales, and the reconstruction of past climates using marine sediment archives.
MARN	5501	Marine Sciences Seminar	Intensive reading, evaluation and critical discussion of current interdisciplinary topics presented at weekly departmental research seminars.
MSE	Materials Science and Engineering		
MSE	5700	Biomaterials and Tissue Engineering	A broad introduction to the field of biomaterials and tissue engineering. Presents basic principles of biological, medical, and material science as applied to implantable medical devices, drug delivery systems and artificial organs.
ME	Mechanical Engineering		
ME	6170	Combustion and Air Pollution	Review of thermodynamics and chemical equilibrium. Introduction to chemical kinetics. Studies of combustion processes, including diffusion and premixed flames. Combustion of gases, liquid, and solid phases, with emphasis on pollution minimization from stationary and mobile systems. Air pollution measurement and instrumentation.
ME	6173	Advanced Combustion	Review of thermodynamic properties, transport properties, conservation equations of multicomponent reacting gas. Introduction to chemical kinetics. Classification of combustion waves. Deflagrations, detonations and diffusion flames. Ignition phenomena, droplet and spray combustion and some aspects of turbulent combustion.
MEDS	Medical Science		
MEDS	5313	Biomaterials and Tissue Engineering	A broad introduction to the field of biomaterials and tissue engineering. Presents basic principles of biological, medical, and material science as applied to implantable medical devices, drug delivery systems and artificial organs.
MCB	Molecular and Cell Biology		
MCB	5001	Biochemistry	Metabolism of carbohydrates, lipids, amino acids, proteins, and nucleic acids, including regulation, and to the structure and function of biological macromolecules. Provides suitable preparation for advanced course work in biochemistry, biophysics, and other areas of molecular biology. Graduate students with considerable laboratory experience may arrange to take only the lecture portion of this course as Biology: MCB 5896 with consent of instructor.
MCB	5002	Biochemistry Laboratory	Theory and application of modern techniques for the separation and characterization of biological macromolecules, including several types of liquid chromatography, liquid scintillation spectrophotometry and SDS polyacrylamide gel electrophoresis. Each student will carry out individual projects using selected techniques.
MCB	5080	Frontiers in Microbiology	Current topics in microbiology including research advances, impact of microorganisms on the environment and society, their role in health and disease, and applications of microbiological research in academic, government and industrial settings.
MCB	5480	Frontiers in Applied Genomics	Current topics in genomics research including ethics, impacts on society, and applications in academic and industrial settings.

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NRE	Natural Resources and the Environment		
NRE	5115	Field Methods in Hydrogeology	Field methods associated with ground water and contamination assessments.
NRE	5145	Environmental Biophysics	Gas laws and transport processes. Radiation environment. Momentum, heat, and mass transfer. Steady-state and transient energy balance. Microclimate of plants and animals. Physical and physiological interactions between plants/animals and their environment.
NRE	5175	Climate and Environmental Systems Modeling	How physical processes in climate and environmental systems – such as atmospheric motion, hydrological processes and transport of atmospheric constituents – are represented in numerical models. Topics include classification of numerical models, steps in climate and environmental (mathematical) modeling, conservation theories of mass and energy, mass balance equations, numerical techniques, and initial and boundary conditions.
NRE	5210	Communications for Environmental Decision Makers	Methods and techniques for effective communication with diverse audiences using written, spoken, and digital media; includes conflict resolution, crisis situations, persuasion, negotiation, marketing and advocacy.
NRE	5575	Natural Resource Applications of Geographic Information Systems	The principles and applications of computer-assisted spatial data analysis in natural resources management will be covered. Both hypothetical and actual case studies of the use of geographic information systems (GIS) to solve natural resource problems will be discussed. Raster- and vector-oriented, microcomputer-based GIS software will serve as the hands-on tools for students.
NRE	5694	Natural Resources Seminar	Active participation in weekly natural resources seminars given by invited speakers.
NRE	5698	Natural Resources Colloquium	Study and discussion of readings (journal articles, books, current research) on a selected topic in natural resources.
NRE	6175	Ground Water Modeling Applications	Application of Modflow to ground water flow and contaminant problems. Well head protection modeling.
PHAR	Pharmacy		
PHAR	5454	Principles of Safety Evaluation	Introduction to toxicologic risk assessment. Fundamentals of dose-response relationships and risk characterization, and their application in the establishment of permissible exposure limits for drugs and other chemicals in the environment or workplace.
PHAR	6455	Advanced Toxicology	A study of the harmful effects of toxic chemicals on biological systems. Emphasis is on mechanisms of toxicant action and on practical applications of modern techniques to assess toxicity and hazard.
PHAR	6475	Mechanistic Toxicology I	Mechanistic toxicology describes the processes of how chemicals exert their toxic effects in biological systems. Therefore, understanding of the underlying mechanisms of toxicity, together with exposure estimates, provides key information that links the toxic hazard of a chemical with the actual human health risk. This first course explores some fundamental cellular and molecular mechanisms of toxicity and integrates them into a larger picture; reactive intermediates, oxidative and nitrate stress, and mitochondria-mediated toxicity will be covered. The basic concepts will be illustrated with specific examples (drugs and environmental chemicals).

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PHIL		Philosophy	
PHIL	5312	Seminar in the Philosophy of Science	A discussion of selected current, methodological issues in the philosophy of science. Topics may include scientific realism versus nonrealism; theories of scientific explanation; the nature of scientific revolutions; theories of the lawfulness of nature; and feminist theories of science.
PLSC		Plant Science	
PLSC	5245	Plant Breeding and Biotechnology	Principles and applications, economic, social and environmental impacts, advantages, potentials and limitations of major traditional and modern plant breeding technologies including crossing/hybridization, polyploidy, mutagenesis, genetic engineering and genome editing.
PLSC	5270	Global Perspectives in Landscape Architecture	Examination of the historic development and contemporary practice of landscape architecture across cultural and ecological international divides. Understanding of how the global age impacts landscape design, community planning, and sustainability frameworks.
PLSC	5460	Sustainable Site Design	Studio-based course covering environmental, cultural, social, economic dimensions of designing sustainable outdoor sites. Conceptual planning to detailed design and analysis of regenerative site systems over a range of contexts from urban to rural sites, using qualitative and quantitative methods. Applications on service-learning and engaged scholarship projects. Field trips required.
PLSC	5470	Sustainable Coastal Land Use Planning	Studio-based course exploring the relationship between sea level rise and the necessary adaptation of society's development patterns. The majority of the course will focus on individual student planning projects. Service learning opportunities. Field trips required.
POLS		Political Science	
POLS	5115	Theories of Human Rights	Debates about the meaning of human rights and their importance.
POLS	5322	Human Security	Examination of emerging conceptions of human security, important elements of which include good governance, food, water, political, economic, and environmental security. Definition, measurement, and politics of human security. Relationship to domestic and international policy-making and advocacy.
POLS	5410	Black Feminist Theory and Politics	Major debates at the core of black feminist theory, emphasizing the ways in which interlocking systems of oppression uphold and sustain each other in contemporary U.S. politics.

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PUBH	Public Health		
PUBH	5201	Essentials of Social Inequality and Health Disparities	Introduction to (a) the extent of health disparities across the US population, (b) how social inequality contributes to health disparities, and (c) why attention to social inequality is essential to the effective practice of clinical medicine and dental medicine. Examination of how society's social, economic, political and cultural institutions are structured and why they perpetuate the unequal distribution of opportunities that systematically limit the life chances and experiences of individuals. A range of social determinants (race/racism, poverty, income inequality, education, environmental conditions, social capital, social cohesion, social mobility, safety/security, criminal justice system) are considered that may influence health, either directly or as pathways for other determinants. Addresses the function of public health assessment, provides students with a conceptual basis for the complementary course, PUBH 5202.
PUBH	5202	Eliminating Social Inequality and Health Disparities	Examination of the evidence for structural, community, and individual-level interventions to reduce the impact of inequity on health and health care utilization. Identification and implementation of multi-level interventions that may reduce inequities by altering the social, economic, and other structural aspects of the environment. It will also address challenges of implementation and ways to reduce potential barriers. The course builds on the conceptual basis of PUBH 5201.
PUBH	5404	Environmental Health	Explores the policy, political and public health implications of such issues as air pollution, drinking water, exposure to hazardous chemicals, indoor air pollution, food protection, lead poisoning, housing, international issues, etc. Provides the student with some basic technical information and familiarity with terms for a better understanding of policy and political decisions and health effects of <u>environmental exposures</u> .
PUBH	5460	Health and Human Rights	Explores the many ways in which human health and well-being are related to human rights. Human rights are a field of international law that includes major treaties, treaty bodies, and adjudicatory mechanisms. This course will review the ways in which human rights instruments and jurisprudence have addressed health and issues related to health. Students will also study a wide range of substantive public health issues that have a human rights dimension, and consider the ways that human rights are used as advocacy tools to improve the structural environment that shapes the public's health.
PUBH	5468	Occupational and Environmental Epidemiology	Topics include the history of occupational epidemiology, causal models, occupational exposure classification systems, environmental epidemiology, cohort mortality studies, cross-sectional surveys, case-control studies, ecologic studies, and statistical and methodological issues in research design and <u>their solutions</u> .

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PUBH	5477	Food, Health and Politics	Comprehensive overview of the factors that influence how our food is grown; what foods are available, affordable, and advertised; and the ensuing public health implications. Examines the history of food production in America, the development of public and private food assistance programs, the fast food movement, and food marketing. Students will explore the political, social, economic and environmental factors that impact food availability and consumption, and discuss the implications of these factors on health outcomes, such as obesity, hunger, chronic diseases, and health disparities.
PUBH	5503	Disability Law, Policy, Ethics, and Advocacy	The goal of this course is to provide students a legal, conceptual, and practical understanding of people with disabilities, forms of discrimination on the basis of disability, and protections against such discrimination. Students will evaluate and understand policy, principles, and social issues that affect the lives of persons with disabilities and their families. Topics include federal, state, and international laws, policies, advocacy and ethics specific to health and well-being; discrimination; education, employment; human rights; and more as related to people with disabilities. Intended for students matriculated in the PHCIDS program.
SOCI	Sociology		
SOCI	5501	Racism	Variable topics in the study of racism, such as racism and U.S. social policy, white racism, and the social construction of whiteness. Topic may vary by semester.
SOCI	5505	Topics in Racism and Ethnic Group Relations	Special topics in sociological analyses of racism and ethnic group relations. Topics will vary by semester.
SOCI	5515	Sociology of Immigration	Theoretical and empirical work on immigration and ethnicity including forms of assimilation, ethnicity and transnationalism; challenges and opportunities for incorporation, and struggles over political, social, economic human rights. The course focuses on the US with selected cases from Europe and Asia.
SOCI	5601	Gender and Society	Critical appraisal of social scientific perspectives on women and men. Feminist theory and current social science research on gender. Emphasis on interdisciplinary approaches.
SOCI	5809	Inequality and the Welfare State	Analysis of the relationship between systems of racial, class, and gender inequality, and the formation and implementation of social policy by the contemporary U.S. welfare state.
SOCI	5821	Social Movements	Analysis of the conditions and processes underlying movement formation and participation and influencing their careers and outcomes.
SOCI	5829	Social Change	A study of the forces prompting and impeding societal change with particular attention to those operative in contemporary society. Major theories of social change are examined.
SOCI	6505	Advanced Topics in Racism and Ethnic Group Relations	Advanced topics in sociological theory and research in racism and ethnic group relations. Topics will vary by semester.
SE	Systems Engineering		

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SE	5000	Introduction to Systems Engineering	Introduction to the hard and soft skills that are required of good systems engineers. Lectures follow the competency models for systems engineers and include topics such as systems thinking, needs identification, requirements formulation, architecture definition, technical management, design integration, as well as verification and validation of designs. Some of the key systems engineering (SE) standards will be covered and the roles of organizations in enabling engineers to develop systems will be explored. Applications of SE concepts and tools in various settings will be discussed through examples and case studies. Students will learn to apply the SE methodologies in modern complex system development environments such as aerospace and defense, transportation, energy, communications, and modern software-intensive systems.
WGSS	Women's, Gender, and Sexuality Studies		
WGSS	5315	Gender and Culture	Anthropological perspectives on the analysis of gender with special focus on dynamics of gender, culture, and power.
WGSS	5333	Topics in the History of American Women	Women in history and their effects on society.
BASC	Basics		
BASC	5300	Human Oppression: The African-American and Puerto Rican Perspective	Examines economic, political, social and cultural forces operating at global, national and local levels, which generate and maintain oppression based on race and ethnicity in the United States. Focuses on the oppression of the Black and Latino populations in the United States, highlighting the African-American and Puerto Rican experiences and perspectives. It will provide a framework for analyzing and understanding oppression. A historical perspective will be utilized to explore past and current oppression related to race and color, culture and ethnicity, social class, gender, sexual/emotional orientation and religion. Intercultural, intracultural, psychosocial, social and political responses to oppression will be addressed throughout the course. Required course for students in the M.S.W. program
CORG	Community Organization		
CORG	5300	Advanced Macro Practice	Contemporary and historical overview of how the macro practice methods independently and collectively can be leveraged for social change. Provides a foundation for addressing ethical obligations and challenges in macro practice, with particular focus on historically oppressed populations. In addition, students will gain an understanding of the role of leadership and use of power in community organizations and policy and practice.

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CORG	5302	Theory and Practice of Social Movements for Community Organizers	Integrates Community Organization foundation and advanced method practice knowledge, values and skills. Students will be asked to select an agency-based Community Organization assignment that they have been working on during the academic year as the basis for a capstone assignment. Appropriate literature that will help students in conceptualizing and writing their capstone assignments will also be distributed and discussed. Concentration on addressing social movement theory and implications for social change and community social work. A minimum of two social movements will be analyzed and one or more social movement related projects will be selected as an in-class project(s). Required for students in the Community Organization concentration.
CORG	5370	Grassroots Neighborhood Organizing	Provides intensive instruction for students who wish to become practitioners or trainers in grassroots neighborhood model of organizing. Examines Alinsky's model of organizing and the refinement of that model. Elective course for Substantive Area: Focused Area of Study on Urban Issues in Social Work.
HBEL	Human Behavior Elective		
HBEL	5327	Ethnic Minorities and the Social Work Profession: Black Experience	Considers the Black Experience from historical, social, political, and economic perspectives. Addresses the evolution of male/female roles and relationships, the genesis of Black family patterns, and the consequences for social work practice. Examines the impact of poverty and discrimination in a context of international and national cultural factors. Required course for Substantive Area: Focused Area of Study on Black Studies for Social Work Practice; Elective course for Substantive Area: Focused Area of Study on Urban Issues in Social Work.
HBEL	5328	Ethnic Minorities and the Social Work Profession: The Puerto Rican/Latino/a Experience	Considers the Puerto Rican experience in the United States from the historical, social, political, economic, and cultural perspectives. Examines the impact of poverty, migration, and discrimination on individuals, families and communities. Required course for Substantive Area: ocused Area of Study on Puerto Rican/Latino/a Studies Social Work; Elective course for Substantive Area: Focused Area of Study on Urban Issues in Social Work; Elective course for Substantive Area: Focused Area of Study on International Issues in Social Work.
HBEL	5370	The LGBTQ Experience: Sexual and Gender Diversities	Examines the problems of America's homosexual minority. Presents homophobia (fear of homosexuals or homosexuality) as a prejudice held by all people, gay and straight, in a society which holds that heterosexuality is the "normal" and "acceptable" behavior and attitude. Intended to expand the students' awareness of how homophobic attitudes affect them and their relationships with other people in both professional and non-professional settings.

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HBEL	5373	Leadership Development in Anti-Violence Work: The Susan Schechter Social Action Seminar	Collaboratively sponsored by Futures Without Violence, The Susan Schechter Leadership Development Fellowship and University of Connecticut School of Social Work, this interdisciplinary seminar will give students a structure for developing their analytic and social action abilities in the area of violence against women, children and in families. Study of the movement to end violence against these populations and its connections to other social change movements, such as civil rights and GLBT rights will be examined. The leadership approach demonstrated in the course is based on the work of Susan Schechter, an academic, activist, practitioner and writer.
HBEL	5376	Puerto Rican and Latina Women and Their Reality	Emphasizes the double oppression that the Puerto Rican woman faces. Analyzes the double burden that she confronts when seeking to maintain her identity as a Puerto Rican and as a woman in a society which discriminates against both groups. Equal emphasis is placed on issues of racism, classism, and heterosexualism since these issues create an even stronger burden on Puerto Rican women. Special consideration is given to Puerto Rican cultural aspects of the socialization process of males and females with a focus on rigid adherence to sex roles (e.g., machismo – marianismo). Elective course for Substantive Area: Focused Area of Study on Puerto Rican/Latino/a Studies Social Work; Elective course for Substantive Area: Focused Area of Study on Social Work with Women and Children in Families; Elective course for Substantive Area: Focused Area of Study on Urban Issues in Social Work
POPR	Policy Practice		
POPR	5312	Political Advocacy	Builds on the concepts and interventions introduced in the Macro Foundation Practice course. Political decision-making groups, including executive, legislative, judicial and private agency decision-making. The ways macro practitioners use power and political analysis is discussed. Emphasis is on the design, implementation and evaluation of a political advocacy strategy to improve the life situations of populations at risk, such as lobbying, preparing and delivering testimony to a public policy making group and forming and maintaining coalitions. Ethical requirements and dilemmas in doing political advocacy are integrated throughout the course. Required course for students in both the Community Organization and the Policy Practice concentrations. The co-requisites for this course differ for each of these concentrations.
SWEL	Social Work Elective		
SWEL	5345	International Development: Theory and Practice	International relief, reconstruction and development — theories and practice strategies to attack poverty and improve human well-being. Among the topics covered will be: building local capacity, developing local partnerships, use of appropriate technology to create sustainability, multi-sectoral work, cultural relevance, ensuring gender sensitive programming, understanding and working with local and national structures, funding streams, and international partnerships. Elective course for Substantive Area: Focused Area of Study on International Social Work.

Sustainability Focused and Related Course List
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SWEL	5360	Economic Justice: Labor and Social Work	The relationship of social work and the labor movement with particular attention to the labor movement under new leadership and with new direction. Organized around four themes: 1) Common roots of labor and social work, 2) Social workers as union members, 3) Social workers as union organizers and 4) The labor movement as a social movement.
SWEL	5385	Human Rights and Social Work	Theoretical, conceptual, and practical foundation for social workers to engage in a human rights-based approach to social work. Students will gain an understanding of the international human rights system, social work's contribution to achieving human rights, and how international human rights principles can be applied to social work practice. We will use a number of cases from varied countries, including the United States, to examine how social workers can both advocate for and respect human rights in their work.