

SCHOOL	Department	level	Number	Course Name	Course Description
BUS	FINA	Grad	6290	Walkable Urban Development, Strategy and Place Management	Special Topics
BUS	IBUS	Grad	4900	International Perspectives on Green Business	Special Topics
BUS	IBUS	Grad	6400	Industry, Economy, Society	Multidisciplinary approach to the study of oil and its effects on business, nation-states, and the world economy, based primarily on political economy and management perspectives. Topics include the oil industry, the global oil environment, and the potential effects of oil on a society.
BUS	MBAD	Grad	6289	Business Ethics and Public Policy	Political, legal, social, economic, and ethical forces acting upon business. Interaction of the market system and public policy process in the development of law and regulation.
BUS	MGT	Grad	4900	Human Capital & Sustainability	Special Topics
BUS	MGT	Grad	6285	Social Entrepreneurship	Theory and practice of social entrepreneurship. The power and limits of social entrepreneurship as a tool for creating sustainable and scalable social impact.
BUS	SMPP	Grad	6207	Environment, Energy, Technology, and Society	The identification, examination, and evaluation of how environment, energy, and technology are interrelated and how these interactions influence policy formulation and implementation at the international, national, regional, industrial, and organizational levels. Same as PPPA 6067
BUS	SMPP	Grad	6210	Strategic Environmental Management	Examination and analysis of the orientation and actions of private, public, and nonprofit sectors in relation to their natural environments. Emphasis on organizational interaction and effectiveness, particularly regarding business firms and industry, on issues of environmental quality and sustainability.
BUS	SMPP	Grad	6211	Corporate Environmental Management in Developing Countries	No description
BUS	SMPP	Grad	6215	Corporate Governance	The theory, practice, and public policy environment of corporate governance. Purpose, functioning, and responsibilities of boards of directors. Power, control, and compensation of corporate management. Shareholders and stakeholders. Corporate governance in comparative national settings.
BUS	SMPP	Grad	6241	Global Corporate Social Responsibility	No description
BUS	SMPP	Grad	6271	Corporate Environmental Management and Policy	No description
BUS	SMPP	Grad	6290	Corporate Social Responsibility	Special Topics
BUS	SMPP	Grad	6290	Sustainability Management and Policy	Special Topics
BUS	SMPP	Grad	6290	Sustainability and Responsible Investment in Today's Market	Special Topics
BUS	SMPP	Grad	6290	Strategic Environmental Management Systems	Special Topics
BUS	SMPP	Grad	6290	Strategy and International Political Economy	Special Topics
BUS	SMPP	Grad	6291	Ethics and Business	An in-depth, comprehensive exploration, analysis, and evaluation of specific for profit and non-profit organization values, approaches, and outcomes related to multiple ethical ideals, systems, and practices.
BUS	SMPP	Grad	8331	Doctoral Seminar in Business and Public Policy	Develops understanding of the major research streams in business and public policy; exposure to theoretical research frameworks and methodological issues and approaches.
BUS	SMPP	Grad	8391	Sustainability Management and Policy	Now: Seminar-Business Mgmt
BUS	TSTD	Grad	6249	Sustainable Destination Management	Relationship of tourism and sustainable development; specific emphasis on cultural, environmental, and economic impacts and trends.
CCAS	AMST	Undergrad	1000	Food Politics	The Dean's Seminars provide Columbian College first-year students focused scholarship on specific intellectual challenges. Topics vary by semester. Consult the schedule of classes for more details.
CCAS	AMST	Undergrad	2440.8	The American City	An interdisciplinary introduction to the ethnic, cultural, political, and architectural landscape of the American city. Urban theory, race and ethnicity, urban history, planning and architecture, city politics, and cultural representations of the city.
CCAS	AMST	Undergrad	2520	American Architecture I	Stylistic properties, form and type characteristics, technological developments, and urbanistic patterns are introduced as a means of interpretation of historic meaning. Buildings are analyzed both as artifacts and as signifiers of social, cultural, and economic tendencies. 1600–1860. Same as AH2154
CCAS	AMST	Undergrad	2521	American Architecture II	Continuation of AMST 2520. Stylistic properties, form and type characteristics, technological developments, and urbanistic patterns are introduced as a means of interpretation of historic meaning. Buildings are analyzed both as artifacts and as signifiers of social, cultural, and economic tendencies. 1860–present. Same as AH2155
CCAS	AMST	Undergrad	3810	Planning Cities	An examination of historical and contemporary trends and dynamics in urban planning in the United States and abroad. Same as GEOG3810
CCAS	AMST	Undergrad	3950	Cinema Citizenship and Environment	Special Topics
CCAS	AMST	Undergrad	3950	New York City: An Environmental History	
CCAS	AMST	Undergrad	3950.13	Reading the Environment: Popular Culture and the Politics of Sustainability	Special Topics

Note: This list is currently being updated and reviewed through departmental leadership. Please check back in Spring 2018 for updated course list (8/25/2017).

CCAS	AMST	Grad	6190.12	Preservation and Sustainability	The course will provide an understanding of the relationships between historic preservation and the cultural, social and economic dimensions of sustainability with specific reference to current and future politics affecting both sustainability and preservation.
CCAS	AMST	Grad	6470.8	Cityscapes	Interdisciplinary examination of the American city, including urban theory, history, planning, architecture, urban politics, and cultural representations of the city. Same as HIST6470
CCAS	AMST	Grad	6475	US Urban History	History of American urban life and culture from the Colonial era to the present, focusing on the transitions from pre-industrial to industrial and post-industrial forms, the social and spatial configuration of U.S. cities, and the urban politics of race, class, and gender. Same as HIST6475
CCAS	ANTH	Undergrad	3407	Conservation in a changing world	How humans and animals interact in a wide variety of settings, how human and animal welfare can be ensured, and how we can create a scientifically sound, yet socially and economically acceptable, conservation of the planet's biodiversity.
CCAS	ANTH	Undergrad	3502	Cultural Ecology	Basic principles of cultural ecology. Human interaction with the ecosystems both past and present; emphasis on the application of anthropological precepts to current environmental problems
CCAS	ANTH	Undergrad	3513	Anthropology of Human Rights	Issues of basic human rights and their violation by different cultures, states, and organizations. Genocide, ecocide, abuses on the basis of ethnicity, religion, or similar factors, and the treatment of those seeking asylum. Rights of informants and groups studied in anthropological research.
CCAS	ANTH	Undergrad	3701	Native People of North America	The purpose of this course is to provide an overview of the indigenous peoples north of Mexico, their traditional cultures, and their present day status and conditions.
CCAS	ANTH	Undergrad	3803	Old World Prehistory: First Farmers to First Cities	Archaeology of the Near East, Egypt, Europe, and other areas, from the beginnings of agriculture to the rise of Babylon.
CCAS	ANTH	Undergrad	3804	Origins of the State and Urban Society	Complex societies, particularly the state, comprise the dominant forces in the modern world system, and command a great (some would say disproportionate) amount of the theoretical and empirical discussion in anthropological, sociological, and historical scholarship
CCAS	ANTH	Undergrad	3991	Topics: Anthropology and Environmentalism	Special Topics
CCAS	ANTH	Grad	6301	Development Anthropology	Theoretical perspectives that distinguish the contribution of anthropology to understanding processes of change in the Third World. Focus on health, population, environment, gender, and tourism issues. The role of anthropology in planning and implementing projects and policy.
CCAS	ANTH	Grad	6302	ISSUES IN DEVELOPMENT: Resources, Consumption and the Environment: The Anthropology of Interconnections	This course examines the social and political process by which aspects of our lived world are turned into resources that we, and others, consume.
CCAS	ANTH	Grad	6302	ISSUES IN DEVELOPMENT: Tourism, Heritage, and Development	This course will examine the links between tourism practices, heritage politics, and development goals.
CCAS	ANTH	Grad	6702	Anthropology of the Environment in Latin America	Special Topics
CCAS	ANTH	Grad	2xxx	Anthropology of Science and Society: 21st Century Brave New Worlds	The course examines the relationship between science and society, asking a series of questions about how scientific knowledge and emergent technologies affect our lives, identities, social relations, and material conditions.
CCAS	ANTH	Grad	3501 (151)	Development Anthropology	The impact of the world economy on nonindustrial societies. Analysis of the role of anthropology in international development programs aimed at alleviating problems in the Third World
CCAS	ANTH	Grad	3504 (154)	Illness, Healing, and Culture	Introduction to medical anthropology. What the record of human evolution and prehistory tells about human health; the epidemiology of health and illness; how different cultures define disease; understanding illness and healing systems cross-culturally; and the role of medical anthropology in health care and international development.
CCAS	ANTH	Undergrad		Palaeolithic Archaeology	Graduate seminar that will provide both a basic introduction to the evolution of human behavior and an advanced level of knowledge and skills related to this topic. Includes the changing world in the Holocene.
CCAS	ARTH	Grad	6235	Art Therapy: International Social and Cultural Diversity	Consideration of stereotypes and biases that interfere with effective treatment of patients who are racially, ethnically, and otherwise diverse. The role of the art therapist in conflict resolution, advocacy, and social justice. Exploration of the therapist's heritage, expectations, and values. Racial identity development; skills for multicultural counseling.
CCAS	BISC	Undergrad	801	Do We Need Biotechnology	
CCAS	BISC	Undergrad	1005	The Biology of Nutrition and Health	A study of the human body and its disorders and diseases through examination of the essential molecules of life, nutrition, digestion, genetics, and reproduction.
CCAS	BISC	Undergrad	1006	The Ecology and Evolution of Organisms	Introduction to ecology and evolution, including man's impact on other plants and animals, and an overview of Earth's biodiversity.
CCAS	BISC	Undergrad	1007	Food, Nutrition, and Service	A study of biology and nutrition that uses service learning to reinforce course concepts. Topics include the need for humans to consume other organisms, processing of consumed nutrients, unexpected effects of nutritional consumption, and measures to improve nutrition.
CCAS	BISC	Undergrad	1008	Understanding Organisms through Service Learning	The evolution of life on earth; the value of other organisms, their role in our world, and how humans can cause harm to this infrastructure. Students work with a community partner to perform activities that assist the partner while reinforcing course concepts.
CCAS	BISC	Undergrad	1111	Cells and Biology	Nutrition and metabolism, cellular and developmental biology, genetics, and molecular biology of plants and animals.
CCAS	BISC	Undergrad	1112	The Biology of Organisms	Concepts and methods in the study of whole organisms. Evolutionary theory; population biology; diversity of plants, animals, fungi, and microorganisms; ecology and behavior; and animal structure and function.

CCAS	BISC	Undergrad	2305	Plant biology	Discussions of plant metabolism and molecular biology: photosynthesis, nitrogen metabolism, membrane transport, mechanisms of hormone action, protein targeting, biotechnology, and current research topics.
CCAS	BISC	Undergrad	2450	Organic Evolution	Synthetic theory of organic evolution, including population biology, speciation, adaptation, macroevolution, systematics, biogeography, and the geologic record.
CCAS	BISC	Undergrad	2454	General Ecology	Lecture (3 hours), laboratory and field (3 hours). Introduction to the concepts of limiting factors, biogeochemical cycles, trophic levels, and energy transfer and their relationship to the structure and function of population, species, communities, and ecosystems.
CCAS	BISC	Undergrad	2459	Ecology, Economy and Sustainability	
CCAS	BISC	Undergrad	2580	Biotechnology	Genetic engineering of bacteria, plants, and animals, including humans. Applications of modern biotechnology, especially in the field of medical biotechnology, such as gene therapy, xenotransplantation, and the Human Genome Project. Regulation, prospects, and social impact of biotechnology.
CCAS	BISC	Undergrad	3325	Environmental Physiology	
CCAS	BISC	Undergrad	3459	Field Biology	Overview of the approaches and techniques used by contemporary field biologists for cataloging, quantifying, and comparing patterns of biodiversity across plants, animals, and fungi at multiple spatial and temporal scales
CCAS	BISC	Undergrad	3460	Conservation Biology	Theory and practice of conserving biological diversity. Ecological patterns of biodiversity, biology of small populations, and conservation case studies. Use of ecological modeling software to explore various topics.
CCAS	BISC	Undergrad	3461	Plant-Animal Interactions	Review of the major ecological and evolutionary interactions that occur between plants and animals in natural and managed ecosystems.
CCAS	BISC	Undergrad	3464	Ecology and Evolution of Societies	Study of broadly important ecological and evolutionary patterns and processes exemplified by organisms that have undergone the major evolutionary transition to living in societies.
CCAS	BISC	Grad	6243	Seminar: Ecology	In-depth study of selected topics, including reports on original publications.
CCAS	BISC	Grad	2334 & 2334W	Integrative Biology of Fishes	An introduction to concepts in anatomy, biomechanics, physiology, developmental biology, biomechanics and hydrodynamics, adaptive radiation, evolutionary biology, and ecology using fish as model organisms. Significant fish groups are covered, but emphasis is on exploring broader topics in which fish have figured prominently in research.
CCAS	BISC	Undergrad	2467	Marine Biology	Study of relationships between organisms and physical, chemical, and biological factors of the marine environment. Consideration of the open ocean and coastal ecosystems and human influences on them. Prerequisite: BISC 1111– BISC 1112except by permission of the instructor.
CCAS	CHEM	Undergrad	1000	Deans Seminar: Pathway to a Renewable Chemistry Economy	Special Topics
CCAS	CHEM	Undergrad	1003	Contemporary Science for Non-Science Majors	Contemporary topics in physical, biological, and medical science.
	CHEM	Undergrad	1004	Contemporary Science for Non-Science Majors	Contemporary topics in physical, biological, and medical science.
CCAS	CHEM	Undergrad	2085	Environmental Chemistry	Chemistry and physics of the environment, with emphasis on water and air pollution; environmental analysis and modeling and their limitations.
CCAS	CHEM	Undergrad	2152	Organic Chemistry with Prof. Voutchova only	Systematic treatment of the structure, preparation, properties, and reactions of the principal classes of organic compounds. Fundamental principles of stereochemistry, reaction mechanisms, and spectroscopic methods of analysis.
CCAS	CHEM	Undergrad	3140	Geochemistry	Chemical systems and processes on the planet Earth; origins and interactions among and within the Earth's lithosphere, oceans, and atmosphere; origin, distribution, and behavior of the elements; radioactive and stable isotope systems. Aqueous geochemistry; geochemical cycles
CCAS	CHEM	Grad	6280	Energy and the Environment	
CCAS	CHEM	Grad	6281	Environmental Chemistry: Air, Water, and Soil Chemistry	
CCAS	CHEM	Grad	6282	Green Industrial Chemistry	
CCAS	CHEM	Grad	6283	Chemical Toxicology and Rational Design of Safer Chemicals	
CCAS	CHEM	Grad	6284	Environmental Analytical Chemistry	
CCAS	CHEM	Grad	6350	Organometallic Chemistry	Special Topics
CCAS	ECON	Undergrad	2136	Natural Resources and Environmental Economics	Analysis of a variety of environmental and natural resource problems. The economic causes of these problems, their consequences, and the relative merits of alternative policies for dealing with them.
CCAS	ECON	Undergrad	2195	Topics in the Economics of Sustainability	Special Topics
CCAS	ECON	Undergrad	2195	Energy Economics	Special Topics
CCAS	ECON	Undergrad	3161	Public Finance- expenditure programs	Economic analysis of government spending and social regulation programs. Topics include public goods, externalities, income transfer and social insurance programs, and benefit–cost analysis of government programs.
CCAS	ECON	Grad	6237	Economics of the Environment and Natural Resources	Analysis of public policy problems relating to the environment and natural resources development and management.
CCAS	ECON	Grad	6250	Survey of Economic Development	An introduction to economic problems faced by less developed countries. Emphasis placed on applications to policy-making and evaluation.
CCAS	ECON	Grad	8337	Environmental Economics	
CCAS	ECON	Grad	8351	Development Economics I	Major analytic concepts, measures, theoretical models, and empirical methods of development economics.

CCAS	ECON	Grad	8357	Regional Economics	Study of regional planning and growth models, including input–output, programming, and econometric models used by planning agencies; analysis of interregional production, trade, migration, firm location, and pricing models.
CCAS	ECON	Grad	8485	Urban Economics	Analysis of spatial relationships among economic activities within an urban area including the urban land, labor, and housing markets; urban transportation models; fiscal relationships among jurisdictions.
CCAS	ENG	Undergrad	3730	Topics in Postcolonial Literature	Historical, critical, and theoretical study of post-colonial literatures-African, Asian, Commonwealth-written in English. Topics vary with instructor; may be repeated for credit provided the topic differs.
CCAS	ENRP	Grad	6085	Topics in Environmental Resource Policy	
CCAS	ENRP	Grad	6101	Environmental Sciences I	Survey of the basic sciences crucial to environmental issues. Topics related to the lithosphere, hydrosphere, atmosphere, and biosphere.
CCAS	ENRP	Grad	6102	Environmental Sciences II	Survey of the basic sciences crucial to environmental issues. Topics related to the lithosphere, hydrosphere, atmosphere, and biosphere.
CCAS	ENRP	Grad	6140	Environmental Impact Statement Procedures and Environmental Law	The rationale for environmental impact statements from the viewpoint of the nature and origins of environmental concerns. Government agencies responsible for environmental impact statements; current statutes and regulations pertaining to the environment.
CCAS	ENRP	Grad	6145	Environmental Justice and Policy	Environmental justice, considered as both a movement and a public policy. Examination of environmental injustices—both perceived and actual—affecting individuals, communities, and populations. Adherence to, and enforcement of, environmental laws and regulations that affect the allocation of environmental benefits and the distribution of sources of toxic pollution and other hazards.
CCAS	ENRP	Grad	6295	Research Topics in Environmental Research Policy	
CCAS	ENRP	Grad	6298	Capstone Course	The capstone seminar involves team development of a project sponsored by an external entity, such as a government agency or non-governmental organization, or participation in an aspect of a research project directed by a faculty member. The student team functions as an external consultant tasked with analysis of the chosen issue.
CCAS	GEOG	Undergrad	1003	Society and Environment	An introduction to the dynamic relationship between society and the physical environment, with focus on population, natural resources, environmental degradation, pollution, and conservation.
CCAS	GEOG	Undergrad	2108	Weather and Climate	The elements and controls of weather and climate. Topics include energy and water balances, atmospheric general circulation, and severe weather events.
CCAS	GEOG	Undergrad	2110	Climate and Human Ecology	Interrelationships between human activities and the climatic environment. Emphasis on global climatic change.
CCAS	GEOG	Undergrad	2127	Population Geography	Patterns of world population; factors contributing to population pressures, growth, and migrations.
CCAS	GEOG	Undergrad	2128	Geomorphology	Understanding the nature, origin, and development of landforms in the field and through the use of maps and aerial photos.
CCAS	GEOG	Undergrad	2133	People, Land and Food	Domestication and dispersal of plants and animals; development of agricultural systems; spatial disparities in world food production, demand, and distribution.
CCAS	GEOG	Undergrad	2134	Energy Resources	Analysis of regional patterns and trends in consumption and production of energy resources. Examination of international energy linkages and energy policies of selected nations.
CCAS	GEOG	Undergrad	2136	Water Resources	Analysis of the global spatial patterns, development, use, and quality of water resources.
CCAS	GEOG	Undergrad	2137	Environmental Hazards	Examination of environmental hazards with emphasis on the use of geographic information systems.
CCAS	GEOG	Undergrad	2140	Cities and Society	The design and function of cities in the United States; contemporary, economic, political, and social change.
CCAS	GEOG	Undergrad	2141	Cities in the Developing World	Urbanization processes, problems, and management in the developing world. Focus on urban location, politics, housing, services, employment, and environmental issues.
CCAS	GEOG	Undergrad	3132	Environmental Quality and Management	The evolution of environmental management philosophies and tools. The global distribution, utilization, and degradation of natural resources.
CCAS	GEOG	Undergrad	3143	Urban Sustainability	Relationship between urban spaces and the environment through the lens of sustainability.
CCAS	GEOG	Undergrad	3193	Environmental law and policy	An introduction to selected pieces of major environmental legislation. The role of the courts and bureaucracy in implementing and interpreting legislation and their impacts on decision making. Designed for students with no training in law
CCAS	GEOG	Undergrad	3198	Arctic Systems	Special Topics
CCAS	GEOG	Undergrad	3810	Planning Cities	An examination of historical and contemporary trends and dynamics in urban planning in the United States and abroad.
CCAS	GEOG	Grad	6198	Arctic Systems	
CCAS	GEOG	Grad	6207	Land Use Planning and Community Development	Selected problems in urban and regional planning: applications of zoning, environmental controls, and other techniques for achieving sustainable urban development.
CCAS	GEOG	Grad	6208	Land Use and Transportation Planning	Relationships between land use and the movement of goods and people. Examination of land use and transportation planning principles, issues, and techniques. Roles of public and private interests in land use and transportation planning and management.
CCAS	GEOG	Grad	6219	Climatology	Inadvertent climate modification due to urbanization and impacts on environmental and human health.
CCAS	GEOG	Grad	6220	Climate Change	Examination of natural and human-induced climatic change, at global, regional, and local scales.
CCAS	GEOG	Grad	6222	Resources and the Environment	Topics related to the spatial variations and interrelationships of resources and the environment; applications of geographic information systems and remote sensing.
CCAS	GEOG	Grad	6230	Environmental Issues in Development	A consideration of the geographical dimensions of the links between development and the environment.

CCAS	GEOG	Grad	6243	Urban Geography	Topics concerning social, political, economic, and environmental issues in U.S. cities.
CCAS	GEOG	Grad	6244	Urban Sustainability	Urban sustainability and environmental issues in developed and developing cities.
					In this course, we will examine the history and practice of water resources policy and management in the context of integrated water resource management. Thus, we will address management issues and policy responses to such topics as the impacts of urban and agricultural runoff on water quality; provision of wastewater and water quality services; water supply, water allocation and scarcity; and modification of waterbodies for the purposes of flood control, hydropower, navigation, and recreation. In addition, non-human water requirements: e.g. for fish and wildlife, as well as the need to preserve the natural ecosystems that provide and sustain water resources will be central to each discussion. We will examine management and policy issues in the United States and worldwide at a range of scales: local, state, federal and international. In the course of these examinations, students will gain an understanding of how current issues such as growing populations, increasing affluence, and climate change may impact water resource policy and management.
CCAS	GEOG	Grad	6245	Water Resources Policy and Management	
CCAS	GEOG	Grad	6250	Geography Perspectives on Development	Theory and debates surrounding economic development in a globalizing world, with case studies.
CCAS	GEOL	Undergrad	1001	Physical Geology	Lecture, laboratory. An introduction to the principal features of the composition and structure of the earth. Topics include the nature of minerals and rocks, surface and deep earth processes, mineral and energy resources, and plate tectonics. Laboratory fee
CCAS	GEOL	Undergrad	1005	Environmental Geology	Lecture, laboratory. An introduction to the impact of geology on the environment, with emphasis on the relation of people and society to natural environments; population evolution, natural hazards, and mineral resources.
CCAS	GEOL	Undergrad	1006	Science and the Environment	The large-scale processes operating within the atmosphere, oceans, and solid Earth
CCAS	GEOL	Undergrad	2106	Oceanography	The ocean with its many environments represents the last largely unexplored frontier on earth. Origin of the ocean systems and plate tectonics, ocean habitats and their biota, marine hydrology and ocean currents; air-sea interaction and climate control; ocean mapping techniques; environmental regulations covering marine resources.
CCAS	GEOL	Undergrad	2159	Geobotanical Ecology of Central Appalachians	A multidisciplinary approach to Appalachian ecology involving application of scientific principles from both geology and botany, stressing interrelationships between geological, geochemical, and biological processes.
CCAS	GEOL	Undergrad	3131	Global Climate Change	Fundamental causes and patterns of climate change. Methods of reconstruction of past climates; modeling and predicting climate change.
CCAS	GEOL	Undergrad	3138	Hydrogeology	Principles and theory of basic and applied hydrology: surface water hydrology, geology of groundwater systems, groundwater flow, surface water-groundwater interactions, contamination and remediation technologies, conservation, management, and regulations.
CCAS	GEOL	Undergrad	3191	Geology of Energy Resources	Principles of geology applied in energy exploration, exploitation, and production; the geology of energy resources in ocean basins; borehole and surface geophysical applications and reconnaissance mapping techniques; management and regulation of energy resources; sustainability, efficiency, and conservation issues.
CCAS	GEOL	Undergrad	3193	Intro to Environmental Law	
CCAS	HIST	Undergrad	2011	Modern American Cultural History	The effects of culture in the shaping of the United States since 1876. The role of the mass media; effects of cultural conceptions on the physical landscape; changing ideas of race, ethnicity, gender, and sexuality; and the political meanings of cultural conflict. Transnational influences on U.S. culture and effects of U.S. culture abroad.
CCAS	HIST	Undergrad	2440	The American City	An interdisciplinary introduction to the ethnic, cultural, political, and architectural landscape of the American city. Urban theory, race and ethnicity, urban history, planning and architecture, city politics, and cultural representations of the city.
CCAS	HIST	Undergrad	3001	Environmental History	Special Topics
CCAS	HIST	Undergrad	3324	US Urban History	History of American urban life and culture from the colonial era to the present, focusing on transitions from pre-industrial to industrial and post-industrial forms. The social and spatial configuration of U.S. cities, and the urban politics of race, class, and gender.
CCAS	HIST	Undergrad	3520	Africans in the Making of the Atlantic World	The role of Africa and Africans in the Atlantic world with emphasis on links between Africa, Europe, and the Americas.
CCAS	HIST	Grad	6470	Cityscapes	Interdisciplinary examination of the American city, including urban theory, history, planning, architecture, urban politics, and cultural representations of the city.
CCAS	HIST	Grad	6475	US Urban History	History of American urban life and culture from the Colonial era to the present, focusing on the transitions from pre-industrial to industrial and post-industrial forms, the social and spatial configuration of U.S. cities, and the urban politics of race,
CCAS	HONR	Undergrad	1033	Scientific Reasoning and Discovery Proseminar	
CCAS	HONR	Undergrad	1034	Scientific Reasoning and Discovery	Special Topics
CCAS	HONR	Undergrad	1034	Our Place in Nature	Special Topics
CCAS	HONR	Undergrad	1034	Global Climate Change Biology	Special Topics
CCAS	HONR	Undergrad	2175	Anthropology and Environmentalism	Special Topics
CCAS	HSSJ	Undergrad	1100	Intro to Human Services & Social Justice	Foundation course providing an overview of the theories, research, practices, issues, and policies that shape the field of human services. Social justice, the historical and intellectual development of the field, community-based scholarship, and the context of Washington, DC.
CCAS	HSSJ	Undergrad	1177	Organizing for Social Justice in Human Services	Theory in community organizing and social justice is connected with an opportunity to explore how it is applied directly in the field. Methods used by non-profit organizations and campaigns to address issues in human services.
CCAS	HSSJ	Undergrad	2200	Principles of Ethical Leadership	The practices and commitments of ethical leaders to enhance organizational effectiveness, engage diverse perspectives, clarify values and mission, and promote commitment to shared purposes.

CCAS	IAD	Undergrad	3410	Sustainability/LEED: Architecture and Design	Consideration of the process by which structures and spaces can be awarded LEED (Leadership in Energy and Environmental Design) certification and the examination that enables individuals to become LEED-accredited professionals.
CCAS	IAD	Grad	6410	Sustainability/LEED: Architecture and Design	Application of sustainable design as well as introduction to the United States Green Building Council's LEED Rating System.
CCAS	MSTD	Grad	6203	Preventive Conservation Concepts	Historical development of preventive conservation in museums, conservation ethics, team approaches to conservation, interactions of various materials with agents of deterioration. Basics of materials testing, preparation of condition reports, choosing museum storage and exhibition materials, and risk assessment.
CCAS	MSTD	Grad	6204	Preventive Conservation Techniques	Practical applications of preventive conservation of materials, monitoring environmental conditions, conducting risk assessments, evaluation of exhibit and storage areas; developing plans, policies, and procedures for collections care; grant proposal preparation for collections care initiatives.
CCAS	ORSC	Undergrad	2116	Leading Change	An in-depth introduction to and analysis of concepts and techniques of leadership, including motivation, goal alignment, incentives, teamwork, and communication. Conceptual and empirical background of the management of change.
CCAS	ORSC	Undergrad	2123	Negotiation and Conflict Resolution	Theories in psychology, management, and communication as applied to individual-, group-, and organizational-level contexts of negotiation and conflict resolution.
CCAS	ORSC	Grad	6240	Corporate Responsibility	
CCAS	COMM	Grad	4150	Persuasion	
CCAS	COMM	Undergrad	3172	Health Communication	
CCAS	PHIL	Undergrad	2134	Philosophy of Human Rights	Conceptual, ethical, and theoretical analyses of human rights with emphasis on the justification of human rights, the debate over cultural relativism, and the application of human rights norms in domestic and global contexts.
CCAS	PHIL	Undergrad	2136	Contemporary Issues in Ethics	Introduction to a range of debates in applied ethics, including both classic debates concerning topics such as the permissibility of abortion, animal treatment, and suicide as well as more current debates concerning our interactions with the environment and our obligations to the poor in a global context.
CCAS	PHIL	Undergrad	3251	Philosophy of Biology	An introduction to conceptual and methodological issues raised by contemporary biology, including teleology, reductionism, units of selection, the structure of evolutionary theory, genetics, taxonomy, and the nature of scientific explanation. Other issues may include the nature-nurture debate, creationism/intelligent design, the evolution of altruism, and the relevance of evolutionary theory to ethical questions.
CCAS	PHIL	Grad	6236	Moral Status	Examination of the question of what sorts of beings matter morally in their own right and how much they matter. While the paradigm bearers of moral status are persons, the course considers competing ways of thinking about the possible moral status of human nonpersons, nonhuman persons, great apes, dolphins, other sentient animals, nonsentient lifeforms, the environment, future people, and advanced forms of artificial intelligence.
CCAS	PHIL	Grad	6237	Animal Ethics	The moral status of animals and the ethics of human use of animals. Major topics include models of moral status, animals' mental life, and specific ethical issues associated with the eating of animal products, the use of animals in research, and the keeping of animals in homes and zoos.
CCAS	PHIL	Grad	6257	The Nature of Animal Minds	Do nonhuman animals have minds? If so, what are they like? How are they similar and how are they different from our minds? What might count as evidence that an animal has a mind? Consideration of some of the questions philosophers and scientists have been asking and issues these questions raise when we think about the possibility that nonhuman animals are thinking creatures.
CCAS	PHIL	Grad	6281	Environmental Philosophy and Policy	Examination of philosophical frameworks for assessing policy approaches to environmental problems. Representative topics include duties to future generations, environmental justice, legal rights for natural objects, critiques of cost-benefit analysis, sustainability, risk measurement, the intrinsic value of nature.
CCAS	PHIL	Undergrad	2132	Social and Political Philosophy	Philosophical theories about how economic, political, legal, and cultural institutions should be arranged. Topics include the meaning and significance of liberty, the legitimate functions of government, the nature of rights, the moral significance of social inequality, and the meaning of democracy.
CCAS	PHIL	Undergrad	2133	Philosophy and Non-Violence	Violence and nonviolence in the personal and social struggle for meaningful, just, and peaceful existence; philosophical foundations of pacifism and nonviolent resistance in the thought of Tolstoy, Gandhi, King, and others; philosophical inquiry into war, terrorism, genocide, and ethnic conflict, as well as human rights, humanitarian intervention, and just war theory.
CCAS	PHIL	Undergrad	2135	Ethics and Business in the Professions	Ethical theories and basic concepts for analysis of moral issues arising in business and in professional practice.
CCAS	PHIL	Undergrad	2281	Philosophy of the Environment	Three models of environmental sustainability: the current paradigm in economic and cultural thinking (neoclassical economics); redistribution of resources toward greater global equity (a macroeconomic perspective); and de-growth in the developed economies (ecological economics). The models offer different perspectives on what environmental sustainability means and how it can impact the cultural, religious, moral, metaphysical, and existential situation.
CCAS	PHIL	Grad	6230	Ethical Issues in Policy Arguments	Critical analysis of ethical foundations of public policy arguments, e.g., about protection of the environment or health and safety, equality of opportunity. Case studies of appeals to "welfare improvements," to norms of duty, to "the social contract," and to rights-claims. Attention to historical contexts and biases. Open to undergraduates only with permission of instructor.
CCAS	PHIL	Grad	6231	Economic Justice	Ethical and economic analysis of equity and efficiency of current U.S. income distribution patterns. Theories of justice; economic theories of distribution; assessment of redistribution policies.
CCAS	PHIL	Grad	6262	Normative Issues- Foreign Policy	Selected issues on foreign policy from a normative perspective; emphasis on human rights, economic globalization, global poverty, sustainable development, and the ethics of military intervention.

CCAS	PPPA	Undergrad	2701	Sustainability and Environmental Policy	A survey of the intersection of the principles of sustainability and the set of public policies that affect environmental management in the United States. Consideration of the idea that environmental policy is inevitably implemented in a complex interaction of both natural and human systems. Topics applicable to most environmental policy debates, such as the balance between costs and benefits of environmental protection. Introduction to a "toolkit" of environmental policy instruments ranging from highly prescriptive command-and-control regulations to flexible market-based policies.
CCAS	PPPA	Grad	6025	Ethics and Public Values	Ethical dimensions of personal and professional judgments of public officials. Cases are used to consider the ethos of public organizations and the moral foundations of public policy.
CCAS	PPPA	Grad	6043	Land Use Planning and Community Development	Theory and practice of land use planning. Issues of competing land uses in an era of increased sprawl, population pressure, and environmental threat. Growth management techniques and practices in states and localities; the use of various regulatory controls and economic incentives to achieve desired outcomes. The idea of "sustainable community."
CCAS	PPPA	Grad	6049	Urban and Regional Policy Analysis	Examination of selected national policies and their effects on urban areas and governments. Emphasis on policy dimensions of urban systems and their relationship to the social, political, and economic context. Against the background of urban politics and administration, areas of health, education, welfare, manpower, transportation, and housing are addressed.
CCAS	PPPA	Grad	6062	Community Development Policy and Management	This course examines the policy and practice of community development, including how private sector developers and lenders work with nonprofits, foundations, and the public sector to promote sustainable affordable housing, economic development, and other community-based projects that meet both financial as well as social impact criteria. This category of finance and development is intended to help people and communities just outside the margins of conventional, mainstream finance join the economic mainstream – and to help the economic mainstream enter emerging opportunity markets. The course explores different types of community development opportunities, including affordable housing, charter school, community facility, small business lending, and nonprofit real estate projects. The course also addresses emerging trends that are likely to affect community development policymakers and practitioners, including transportation oriented development, "green" development, use of technology, comprehensive community initiatives, and new ways of raising capital for community development projects.
CCAS	PPPA	Grad	6063	Policy Issues in Corporate Social Responsibility and Impact Investing	This course examines the role of the public and nonprofit sectors in supporting corporate and investor activities that are intended to have social and environmental, in addition to financial, benefits. These activities – often referred to as "corporate Social Responsibility" (CSR) and "impact investing" – have been described as having significant potential to create social benefits in addition to being in the financial best interests of the corporation or investor. At the same time, some critics of these activities have said that they are less about producing social benefits and more about marketing private sector activities that are primarily designed to produce corporate financial gains. The course explores what is meant by these two terms, what steps the public and nonprofit sectors have taken to support the wide range of activities that these terms encompass, and what have been the results of this work both in the United States and in other countries. The course also addresses emerging trends that are likely to affect the public and nonprofit role in CSR and impact investing in the future.
CCAS	PPPA	Grad	6066	Environmental Policy	Current issues in environmental policy: biodiversity, land use including wilderness protection, climate change, environmental justice, economic growth, and ecological sustainability.
CCAS	PPPA	Grad	6067	Environment, Energy, Technology, and Society	The identification, examination, and evaluation of how environment, energy, and technology are interrelated and how these interactions influence policy formulation and implementation at the international, national, regional, industrial, and organizational levels
CCAS	PSC	Undergrad	2212	State and Urban Policy Problems	Selected issues in state and urban policymaking, with emphasis on urban and metropolitan settings.
CCAS	PSC	Undergrad	2220	Public Opinion	How public opinion is measured, how it is shaped, and its consequences for policymaking.
CCAS	PSC	Undergrad	2222	Science, Technology and Politics	Multiple impacts of scientific and technological developments on the political systems. Discussion of public policies for support, use, and control of science and technology.
CCAS	PSC	Undergrad	2224	Environmental Law and Policy	
CCAS	PSC	Undergrad	2224	Issues in Domestic Public Policy	Examination of the decision-making process and the substance of various issues in domestic public policy in such areas as crime, economics, education, energy, the environment, poverty, and health.
CCAS	PSC	Undergrad	2224	Domestic Energy Policy	
CCAS	PSC	Undergrad	2224	Issues in Domestic Public Policy	Examination of the decision-making process and the substance of various issues in domestic public policy in such areas as crime, economics, education, energy, the environment, poverty, and health.
CCAS	PSC	Undergrad	2229	Media and Politics	The impact of the media on American politics, including the nature of coverage of political issues and campaigns, dynamics of selecting and presenting news stories, and consequences of media messages for public opinion and action.
CCAS	PSC	Undergrad	2337	Development Politics	An examination of how and why political systems develop the way they do. Why do some countries develop into democracies, while others become authoritarian? How do class conflict, the nature of the elite, and the political culture affect the development of political institutions?
CCAS	PSC	Undergrad	2367	Human Rights	Human rights theory, the various movements for human, religious, civil, political, and other rights.
CCAS	PSC	Undergrad	2367	Human Rights	Human rights theory, the various movements for human, religious, civil, political, and other rights.

CCAS	PSC	Undergrad	2439	International Political Economy	Analysis of the political aspects of global economic relationships, focusing on such issues as economic hegemony, interdependence, trade relations, development assistance, multinational corporations, and the role of international organizations.
CCAS	PSC	Undergrad	2444	Public International Law	Survey of essential principles and concepts of public international law through case analysis and with reference to political factors.
CCAS	PSC	Undergrad	3192	Development Challenges in Africa	Special Topics
CCAS	PSC	Grad	6444	Politics of International Law	The political sources and consequences of international law and norms.
CCAS	PSC	Grad	8212	Urban Policy Problems	Analysis of public policy issues confronting urban governments; emphasis on the theoretical roots and empirical impact of past and present programs in such areas as housing, education, poverty, and crime.
CCAS	PSC	Grad	2442 & 2442W	International Organizations	Development and operations of international organizations working in the areas of collective security, peacekeeping, trade, finance, environment, human rights.
CCAS	SMPA	Undergrad	3193	Sustainability Reporting	Special Topics
CCAS	SMPA	Undergrad	3194	Development, Governance and Digital Technology	Special Topics
CCAS	SMPA	Undergrad	3194	Communication, Development, and Social Change	Special Topics
CCAS	SOC	Undergrad	1000	Poverty, Place, and Race	Special Topics
CCAS	SOC	Undergrad	2105	Social Problems in American Society	Introduction to critical social problems (e.g., unemployment, poverty, crime, discrimination) in the United States and how they are, and have historically been, researched and understood by the academic and non-academic worlds. Concepts, theories, and methods of sociological research; examination of the field of social problems generally, emphasizing contemporary social problems.
CCAS	SOC	Undergrad	2169	Urban Sociology	Analysis of the city from a sociological perspective. Topics include the social change and inequality associated with urban growth, neighborhood change, and suburbanization; residential segregation; the issue of whether community exists in cities; urban poverty and homelessness.
CCAS	SOC	Undergrad	2170	Class and Inequality in American Society	Analysis of distribution of resources and opportunities for participation, education, and social mobility; international comparisons; analysis of public policies that affect these distributions.
CCAS	SOC	Undergrad	2179	Race and Minority Relations	Analysis of relationships between dominant and minority groups in society; nature and range of problems; analysis of the phenomenon of prejudice
CCAS	SOC	Undergrad	2181	Sociology of Food: School Food Policy	Special Topics
CCAS	SOC	Grad	6248	Race and Urban Redevelopment	An examination of sociological forces shaping the development of metropolitan areas, racial inequality, and the intersections of urban development and race relations. Major theories of urban and metropolitan development and causes of racial inequality; major past and current public policies.
CCAS	SOC	Grad	6250	Urban Sociology	Systematic analysis of urbanization and life within urban areas, primarily in the United States. Topics include theoretical perspectives on urban growth and neighborhood change, housing, the community question, neighborhood effects on individuals within the metropolis, and selected policy issues.
CCAS	SPAN	Undergrad	2006	Advanced Spanish II	Development of advanced Spanish oral proficiency, critical content knowledge, terminology and concepts through content-based course work in the areas of environmental and social sustainability in Latin America. Critical evaluation of key environmental and social aspects of sustainability as related to Spanish-speaking countries. Focus on understanding and interpretation of language- and discipline-specific written and oral materials such as film and documentary, news, academic, literary and public media texts.
CCAS	SPAN	Undergrad	3022	Topics for Advanced Oral Proficiency: Environmental and social sustainability in Latin America	Development of advanced Spanish oral proficiency, critical content knowledge, terminology and concepts through content-based course work in the areas of environmental and social sustainability in Latin America. Critical evaluation of key environmental and social aspects of sustainability as related to Spanish-speaking countries. Focus on understanding and interpretation of language- and discipline-specific written and oral materials such as film and documentary, news, academic, literary and public media texts.
CCAS	TRDA	Undergrad	2195	Global Dance History	
CCAS	TRDA	Grad	6204	Personal Aesthetics II: The Environment	No description
CPS	PSLD	Grad	6201	Introduction to Design	No description
CPS	PSLD	Grad	6202	Site Analysis	No description
CPS	PSLD	Grad	6203	Site Engineering	No description
CPS	PSLD	Grad	6204	Construction Methods and Materials	No description
CPS	PSLD	Grad	6212	History of Landscape Design	No description
CPS	PSLD	Grad	6213	Contemporary Themes in Landscape Design Seminar	Current thinking and trends in shaping the landscape.
CPS	PSLD	Grad	6221	Landscape Plants for Fall	No description
CPS	PSLD	Grad	6223	Landscape Plants for Spring	No description
CPS	PSLD	Grad	6225	Landscape Plants for Summer	No description
CPS	PSLD	Grad	6231	Site Design Studio	The interaction of the design concept and the various factors and circumstances that dictate or moderate that particular concept in the garden design process. The process that transforms abstract design principles, ordering principles, and spatial organizations previously learned into a specific garden design. Graphics demonstrations and exercises to further develop visual and graphic communication skills.
CPS	PSLD	Grad	6236	Planting Design Studio	No description
CPS	PSLD	Grad	6240	Comprehensive Project	No description
CPS	PSLD	Grad	6260	Introduction to Sustainable Design	No description
CPS	PSLD	Grad	6261	Ecology of the Build Environment	No description
CPS	PSLD	Grad	6262	Tools for Sustainable Design	No description
CPS	PSLD	Grad	6264	Native Plants I	Identification and use of native plant species that are sustainable due to their evolution as part of its local ecosystem.
CPS	PSLD	Grad	6268	Sustainable Design Methods	No description

CPS	PSLD	Grad	6269	Sustenance and the Landscape	No description
CPS	PSLD	Grad	6270	Sustainable Design Charrette	No description
CPS	PSLD	Grad	6465	Native Plants II	Identification and use of native plant species that are sustainable due to their evolution as part of its local ecosystem.
CPS	PSLD	Grad	6566	Ecological Restoration	No description
CPS	PSUS	Grad	6201	Principles of Sustainable Urban Planning	The environmental, social, and economic elements of sustainability. Present and future challenges, including environmental management, energy policy, financial crises, global warming, inequality, public education, third and first world slums, the success and failure of nations, urban agriculture, urban economics, and more. The implications of sustainable development and conducting research based on evidenced-based policy. Students focus on the work of researchers outside of the planning field as they write a series of research essays containing reviews of relevant scientific literature.
CPS	PSUS	Grad	6202	Economics of Sustainable Communities	The application of neoclassical economics to problems faced by practitioners of the field of sustainable urban and regional planning. Key economic concepts including supply and demand, consumption and production, markets and market failure, and measurement of environmental and other non-market commodities. An economist's perspective on the principals and methods for understanding urban and environmental challenges and solutions, urban growth, environmental quality, public policy, and other issues fundamental to contemporary development.
CPS	PSUS	Grad	6204	Land Use: Law, Design and Public-Private Partnerships	No description
CPS	PSUS	Grad	6210	Transportation Planning in City Systems	Transportation planning with long-run goals in mind, including reducing greenhouse gas emissions. The role of planning at local and regional scales within the broader framework of transportation engineering.
CPS	PSUS	Grad	6211	Regional Development and Agricultural Economics	The economics of land use patterns and development processes in the United States and elsewhere in the world. Introduction to the field of agricultural economics and examination of food deserts and other food-related problems relevant to the field of sustainable urban planning.
CPS	PSUS	Grad	6212	Sustainable Communities: Housing and Design	Community development with a focus on policy and the various sectors of interest that affect contemporary urbanization. How policies, planning techniques, and implementation strategies form the core work of planning practitioners. Topics include water supply, food deserts, public health, and urban resilience. Pathways to more sustainable communities are explored through the policy arenas in which key decisions are made; key sectors that make up the fabric of communities; and special topics that have emerged as critical challenges for sustainable community development.
CPS	PSUS	Grad	6213	Research Methods II: Advanced Geospatial and Econometric Analysis	Application of econometric and geospatial analysis in the field of sustainable urban and regional planning. Emphasis on objectivity and use of the scientific method to form defensible, evidence-based policy. Prerequisites: Research Methods I.
CPS	PSUS	Grad	6220	Planning Resilient and Low Carbon Cities	International perspectives on urban planning, taking into consideration increased global temperatures resulting from greenhouse gas emissions-induced climate change. The course is taught with reference to the findings of the Intergovernmental Panel on Climate Change (IPCC) and considers how urbanization around the world must adapt to the reality of global warming and its consequences.
CPS	PSUS	Grad	6221	The Scientific Basis of Climate Change	The science underlying climate change policy and decision making. Earth systems, climate change projections, the need for mitigation, and impact assessment. Designed for non-scientists.
CPS	PSUS	Grad	6222	Sustainable Building: Energy Demand, Efficiency, and Supply	Energy use in built environments with an emphasis on fundamental drivers of energy demand, strategies to promote energy efficiency, and essential features of energy supply. Examination of the relationship between energy demand and supply in development. How advances in construction technology can help counter greenhouse gas emissions.
CPS	PSUS	Grad	6223	Sustainable Communities II: tools for assessment and Transformation	Builds on PSUS 6212 by further detailing the theory and tools relevant to the assessment and transformation of neighborhood and communities. Geospatial analysis explore the fundamental drivers of urban form, advanced transportation systems, theories of change, and various impact assessment tools used to inform policy implementation.
CPS	PSUS	Grad	6224	Sustainable Energy for Cities and the Environment	Resource management and renewable energy technologies. Vulnerabilities of existing urban structures, particularly the energy grid. Implications of and solutions to energy-related problems likely to arise in present and future cities.
CPS	PSUS	Grad	6230	Studio: Sustainable Community Design	No description
CPS	PSUS	Grad	6231	Practicum in Sustainable Technology Management and Policy	No description
CPS	PSUS	Grad	6233	Capstone	No description
CPS	PSUS	Grad	6235	Special Topics in Urban Sustainability	No description
CPS	PSUS	Grad	6260	Intro to sustainable design	No Description
CPS	PSUS	Grad	6261	Ecology of the Built Environment	No Description
CPS	PSUS	Grad	6262	Tools for Sustainable Design	No Description
CPS	PSUS	Grad	6264	Native Plants I	No Description
CPS	PSUS	Grad	6265	Native Plants II	No Description
CPS	PSUS	Grad	6266	Ecological Restoration	No Description
CPS	PSUS	Grad	6268	Sustenance and Landscape	No Description

CPS	PSUS	Grad	6269	Sustainable Design Charette	Preparation of a final project that demonstrates students' understanding of how to select and use sustainable site principles in a landscape design. Building and expanding upon techniques learned in previous coursework, students show comprehension of how their project site has boundaries within its surrounding ecosystem, but is still part of a larger life cycle. Students work in a concentrated charrette format to develop a site design that is fully sustainable and buildable.
ELLIOTT	IAFF	Undergrad	3179	Energy and the Environment	Special Topics
ELLIOTT	IAFF	Undergrad	3180	Global Energy Security	Special Topics
ELLIOTT	IAFF	Grad	6138.17	Gender, Disasters, and Development	Special Topics
ELLIOTT	IAFF	Undergrad	3183	Migration, Gender & International Development	Special Topics
ELLIOTT	IAFF	Undergrad	3183	Post Disaster Development in Haiti	Special Topics
ELLIOTT	IAFF	Undergrad	3183	Challenges of Globalization for Sustainable Development	Special Topics
ELLIOTT	IAFF	Undergrad	3186	Development Issues in SE Asia	Special Topics
ELLIOTT	IAFF	Undergrad	3187	Venezuela and Political Economy of Oil	Special Topics
ELLIOTT	IAFF	Undergrad	3190	International Environmental Policy	Special Topics
ELLIOTT	IAFF	Undergrad	3190	International Oceans Policy	Special Topics
ELLIOTT	IAFF	Grad	6121	Cornerstone Seminar in International Development	Introduction to the concepts and methods of international development.
ELLIOTT	IAFF	Grad	6136	Gender and Development	Theoretical approaches to gender and development and debates over how to promote gender equity and rights across the gender spectrum. Key issues in gender and development and the range of actors who are involved in promoting gender equality. General patterns, lessons with broader applications, and challenges and differences within and between societies.
ELLIOTT	IAFF	Grad	6138	Rural Development, Human Rights, and Biodiversity	special topics
ELLIOTT	IAFF	Grad	6138	Gender, Tourism and Development	special topics
ELLIOTT	IAFF	Grad	6138	Indigenous People & Development	special topics
ELLIOTT	IAFF	Grad	6138	Financing Climate Change Policy	special topics
ELLIOTT	IAFF	Grad	6138	Environment and Development	special topics
ELLIOTT	IAFF	Grad	6138	Poverty and Bottom-Up Development	special topics
ELLIOTT	IAFF	Grad	6138	Climate Change and Sustainable Development	special topics
ELLIOTT	IAFF	Grad	6138	Global Food Security	special topics
ELLIOTT	IAFF	Grad	6138	International Climate Policy	special topics
ELLIOTT	IAFF	Grad	6151	Environmental Policy	Examination of public policies designed to protect the human and physical environment; focus on the ways science and technology can simultaneously create new environmental problems and contribute to their mitigation and prevention.
ELLIOTT	IAFF	Grad	6158	International Issues in Energy	special topics
ELLIOTT	IAFF	Grad	6186	Environmental Security	special topics
ELLIOTT	IAFF	Grad	6186	Energy Security	special topics
ELLIOTT	IAFF	Grad	6186	ST: Food, Globalization, and Conflict	
ELLIOTT	IAFF	Grad	6198	International Climate Policy	Special topics
ELLIOTT	IAFF	Grad	6378	Oil: Industry, Economy, Society	Special Topics
ELLIOTT	IAFF	Undergrad		The Arctic: New Frontier for Energy, Environment, and Development	
ELLIOTT	IAFF	Undergrad		International Climate Change Policy	
GSHED	CPED	Grad	6608	Development and Diversity	
LAW	LAW	Grad	6424	Animal Law	
LAW	LAW	Grad	6430	Environmental Law	
LAW	LAW	Grad	6431	Wildlife and Ecosystems Law	
LAW	LAW	Grad	6432	Air Pollution Control	
LAW	LAW	Grad	6434	Water Pollution Control	
LAW	LAW	Grad	6435	Trade and Sustainable Development	
LAW	LAW	Grad	6437	Coastal, Navigation, and Wetlands Resource Law	
LAW	LAW	Grad	6438	Energy Law and Regulation	
LAW	LAW	Grad	6440	Natural Resources Law	
LAW	LAW	Grad	6442	Control of Solid and Hazardous Wastes	
LAW	LAW	Grad	6443	Oil and Gas Law	
LAW	LAW	Grad	6444	Regulation of Toxic Substance Risk	
LAW	LAW	Grad	6449	Environmental and Toxic Torts	
LAW	LAW	Grad	6450	Federal Facilities Environmental Law Issues	

LAW	LAW	Grad	6452	Environmental Issues in Business Transactions	
LAW	LAW	Grad	6454	International Environmental Law	
LAW	LAW	Grad	6455	International Climate Change Law	
LAW	LAW	Grad	6457	Sustainable Regional Growth Seminar	
LAW	LAW	Grad	6458	Environmental Negotiations	
LAW	LAW	Grad	6459	Atomic Energy Law	
LAW	LAW	Grad	6460	Environment and Energy Policy Practicum	
LAW	LAW	Grad	6464	Environmental Crimes	
LAW	LAW	Grad	6466	Environmental Law Seminars	Food and Agriculture, Energy Commodities Trading, Comparative Energy Regulatory Systems, International Environmental Governance, US Electric Systems and Sustainability, Electric and Natural Gas Regulation
LAW	LAW	Grad	6468	Graduate Environmental Placement	
LAW	LAW	Grad	6469	Environmental Lawyering	
LAW	LAW	Grad	6545	International Project Finance Law	
LAW	LAW	Grad	6571	Human Rights and Environmental Protection	
LAW	LAW	Grad	6627	Environmental Law Clinic	
MILKEN	EXSC	Undergrad	1114	Community Nutrition	Introduction to community nutrition and public health programs offered on the local, state, national, and international levels, targeting both individuals and groups. Topics include health policies, nutrition programs, nutrition assessment, and principles of nutrition education.
MILKEN	EXSC	Undergrad	1118	Sport and Nutrition	Nutritional needs for recreational exercise and sports; skills in assessing nutritional needs; development of individual nutrition programs that are sport/activity-specific; and identification and correction of nutrition problems affecting sports performance.
MILKEN	EXSC	Undergrad	2114	Nutritional Sciences I	Study of macronutrients (carbohydrate, fat, and protein) and how they are digested, absorbed, and metabolized by the human body. The unique functions and dietary applications of each macronutrient and its requirements, as well as how macronutrients are implicated in disease pathology, prevention, and management. Hormonal control of blood sugar levels, appetite, and satiety. Other topics include weight management, meal planning, fat and carbohydrate substitutes, alcohol metabolism, dietary guidelines, food labeling, and sports nutrition.
MILKEN	EXSC	Undergrad	2115	Nutritional Sciences II	Advanced study of how micronutrients (e.g. vitamins and minerals) are digested, absorbed, and metabolized by the human body. The unique functions of each essential micronutrient and nutrient-nutrient interactions supporting organ systems and metabolism. Other topics include hydration, functional ingredients, food additives, dietary supplements, food safety, lifecycle nutrition, and global micronutrient initiatives.
MILKEN	EXSC	Undergrad	2119	Basic Nutrition	Introduction to nutrition science as it relates to human growth and development, dietary guidelines, digestion and absorption of nutrients, appetite, body weight, and chronic disease. How the body uses energy provided by fats, carbohydrates, and proteins, and how it uses vitamins and minerals. Discussions include how nutritional status is assessed and nutrition on an individual and population level. Analysis of popular nutrition topics covered by the media.
MILKEN	EXSC	Undergrad	2122	Food Systems and Public Health	This course will explore systems thinking as it pertains to agriculture and food, attempt to define sustainability within the context of the global food system, examine the current state of the global food system from farm to fork, and analyze its impacts on health. The course will also examine several policies, programs, and proposals aimed at creating a healthier, more sustainable global food system.
MILKEN	EXSC	Grad	6208	Physical activity: Physiology and Epidemiology	
MILKEN	EXSC	Grad	6209	Advanced Concepts in Nutritional Science	Topics in nutrition and public health. Emerging issues, challenges, and controversies in nutrition science; the role of diet composition and physical activity in the maintenance of health and the development of chronic disease; and effectively communicating scientific findings and identifying key knowledge gaps in nutrition science literature.
MILKEN	EXSC	Grad	6242	Nutrition Across the Lifespan	The science of nutrition as it relates to health throughout the human life cycle. Changes in human metabolic processes and nutrient needs during the course of the aging process. Nutrition-related disorders. Prerequisites: EXNS 2119 or permission of the instructor.
MILKEN	HLWL	Undergrad	1101	Science of Integrated Medicine	Special Topics
MILKEN	HLWL	Undergrad	1101	Food Systems and Public Health	Special Topics
MILKEN	HLWL	Undergrad	1104	Outdoor and Environmental Education	A conceptual and experiential introduction to outdoor education, environmental education, wilderness travel, and outdoor leadership.
MILKEN	HLWL	Undergrad	1108	Weight and Society	Background and concepts of body dissatisfaction, disordered eating, food preoccupation, and exercise obsession.
MILKEN	HLWL	Undergrad	1110	Issues in Alternative Medicine	Various modalities of alternative/complementary/integrative therapy. Critical analysis and evaluation of the many dimensions of these approaches.
MILKEN	HLWL	Undergrad	1112	Issues in Women's Health	An introduction to health promotion and disease prevention pertaining especially to diseases, disorders, and conditions that are more prevalent among or unique to women or for which risk factors or interventions may differ for women and men. Topics are covered from epidemiological, sociocultural, historical, and behavioral perspectives.

MILKEN	HLWL	Undergrad	1114	Personal Health and Wellness	A survey of the various components involved in personal health and wellness, such as personal fitness, sexuality, mental health, and environmental health. Emphasis is on application of knowledge through the use of decision-making and behavior modification skills.
MILKEN	HLWL	Undergrad	1116	Lifestyle Nutrition	An introduction to nutrition that enables the student to make healthful food choices to enhance quality of life and prevention of chronic disease. Topics may include label reading, vegetarian diets, eating for exercise, and interpreting nutrient recommendations.
MILKEN	HLWL	Undergrad	1117	Functional Fitness	Core elements of personal fitness as applied to daily life. Emphasis on the development of functional fitness skills that can be practiced both in and out of the classroom.
MILKEN	PubH	Undergrad	1101	Introduction to Public Health and Health Services	Introduction to aspects of public health and health services, including health services administration and policy, maternal and child health, environmental health, and health promotion.
MILKEN	PubH	Undergrad	2114	Environment, Health and Development	Survey of the relationship between health and development and environmental trends. Topics include deforestation, urban contamination, and desertification.
MILKEN	PUBH	Undergrad	2115	Health, Human Rights, Displaced Persons	Concepts of health as a human right, ethics, and the participation of the international community in moving toward health for all. Civil and international conflict in the generation of displaced populations.
MILKEN	PubH	Undergrad	2117	Service Learning in Public Health	A service-learning course that combines classroom instruction with practical learning. Students are responsible for securing an approved service site before the beginning of the semester; the instructor is available to assist with this placement. Prerequisites: None.
MILKEN	PubH	Undergrad	3132	Health and the Environment	Introduction to environmental and occupational health and implications for individual and population health. Issues of clean water, environmental toxins, air pollution, and the environmental impact on infectious diseases.
MILKEN	PubH	Undergrad	3133	Global Health and Development	Basic concepts of development theory, international health policy, demographic trends, and health promotion; how the relationships between socioeconomic development and global health can be observed, measured, and used for the management of health programs.
MILKEN	PubH	Undergrad	3135	Health Policy	An introduction to the fundamentals of the health care system in the United States and strategies available to policymakers when addressing problems relating to access, financing, and delivery of health care.
MILKEN	PubH	Undergrad	3136	Health Law	Legal concepts related to individual health care and public health systems in the United States. Health care law, public health law, and bioethics.
MILKEN	PUBH	Undergrad	3137	Global Public Health Nutrition	Consideration of hunger and other nutrition issues globally, including food insecurity, under/over nutrition, and micronutrient deficiencies. Application of UNICEF malnutrition framework to describe vulnerable groups, critique program strategies, and identify multisectorial strategies to reduce hunger and malnutrition.
MILKEN	PubH	Undergrad	3150	Sustainable Energy and Environmental Health	Sustainability issues from the perspective of environmental health. Technical, social, and health implications of specific energy sources. Energy conservation and efficiency in the context of population growth, food and water resources, and maintenance of a healthy environment for future generations.
MILKEN	PubH	Undergrad	3190	Current Issues in Bioethics	Recent advances in science and technology make biomedical ethics a continuing matter of concern for students, health professionals and laypersons alike. This course offers an opportunity to investigate both general and specific ethical questions and ethical decision making from both a personal and organizational perspective, including topics such as the right to health care, research with human subjects, reproductive issues, genetics, professional and student roles and responsibilities, and end-of-life issues. Such investigation requires exposure to the issues and to various attempts to address and resolve them. The course requires participation in group discussions as well as independent critical writing.
MILKEN	PubH	Grad	6004	Environmental and Occupational Health in a Sustainable World	Examines the connection between population health and exposures to chemical, physical, and biological agents in the environment. Through the use of problem-solving frameworks, students will become familiar with data sources, methodologies and policy approaches being used to address the public health impacts of environmental and occupational health hazards, including the consequences of climate change, natural resource degradation, and industrial chemicals. The course will integrate key concepts of environmental health with principles of sustainability to illustrate how public policies and practices on the local, national and global level affect population health.
MILKEN	PubH	Grad	6099	Epidemiology of Obesity	Special Topics
MILKEN	PubH	Grad	6099	Pesticides and Cancer	Special Topics
MILKEN	PubH	Grad	6099	Emerging Zoonotic Disease and Global Food	Special Topics
MILKEN	PubH	Grad	6099	Epidemiology of Foodborne and Waterborne Diseases	Special Topics
MILKEN	PubH	Grad	6099	US Food Policy and Politics	Special Topics
MILKEN	PubH	Grad	6121	Environmental and Occupational Epidemiology	Epidemiologic methods for the study of environmental and occupational health problems. Epidemiologic exposure assessment methods and methods relevant to cohort, case-control, cross-sectional, and cluster investigation studies. Sources of and evaluation of biases and confounding, as well as survey and questionnaire design.
MILKEN	PUBH	Grad	6122	Protecting Public Health and the Environment	The legislative, regulatory, judicial, and political system in the United States developed to protect human health and the environment. National and global public and environmental health agencies, policy development, and current topics.
MILKEN	PubH	Grad	6123	Toxicology: Applications for Public Health Policy	Introduction to principles of toxicology with emphasis on concepts most relevant in risk assessment, management, and communication; and public health policy.

MILKEN	PubH	Grad	6124	Problem Solving in Environmental and Occupational Health	This culminating course uses problem-based learning methods to examine a variety of real-world EOH issues in depth. Cases stimulate students to integrate their cumulative knowledge across all required courses and demonstrate their professional competencies. Students to conduct activities characteristic of EOH practice: evaluating a variety of technical, public, and media, reports; integrating and interpreting environmental, exposure, and health information effectively; designing analytic and communication strategies; presenting in writing and orally relevant materials to address EOH issues; and, making appropriate policy and/or program decisions and recommendations.
MILKEN	PubH	Grad	6125	Intro to Children's Health and the Environment	Describes the impact of environmental toxicants on children's health and reviews some of the major policy issues in the field of children's environmental health.
MILKEN	PubH	Grad	6126	Assessment and Control of Environmental Hazards	Introduces the anticipation, recognition, assessment, and control of hazards in the workplace and the ambient environment. It emphasizes an understanding of the characteristic features of specific hazards, which may be chemical, biological, or physical/ergonomic.
MILKEN	PubH	Grad	6127	Applied Environmental Health Microbiology	Basics of public health microbiology as it relates to the environment, food, water, and bioterrorism. Examines from an environmental health perspective how the principles of microbiology are applied to current and emerging public health issues, whether from intentional or unintentional contamination of the environment. Specific topics will include: industrial animal production and increasing prevalence of antibiotic resistance; effectiveness of various point of use technologies for water purification; recent advances in quantitative microbial risk assessment; one medicine (where public and veterinary health meet); detection strategies for microorganisms (including bioterrorism agents); and current approaches in food defense and agroterrorism.
MILKEN	PubH	Grad	6128	Global Environment and Occupational Health	Examines environmental and occupational health issues at various stages in the development process. Emphasis will be placed on principles of development economics and associated environmental health issues.
MILKEN	PubH	Grad	6129	Problem Formulation in Environmental and Occupational Health	
MILKEN	PubH	Grad	6130	Sustainable Energy and Environment	Public Health professions play a vital role in shaping sustainable energy strategies in the context of environment & human health impacts. Sustainability of various energy strategies including energy conservation, green building principles and renewable energy. Mitigation & adaption policies for climate change. Emphasizes the life cycle framework which focuses on natural resource depletion, water & energy consumption as well as air, water & solid waste pollutant emissions.
MILKEN	PubH	Grad	6131	Applied Data Analysis in Water	Apply biostatistical concepts & methods to analysis of EOH data. Students manage datasets, conduct data analyses using Stata, present data graphically, & interpret data for relevance to EOH research, policy & practice. Skills developed and practiced will help students synthesize data, consider findings in terms of risk management options, and communicate findings for intended audiences.
MILKEN	PubH	Grad	6132	Design, Implementation and Evaluation of Global Water, Sanitation and Hygiene (WASH) Programs	Course designed for students working in both disaster and development settings of developing countries where contaminated water, inadequate sanitation and poor hygiene (WASH) are the cause of serious health problems. Fundamental concepts will be taken from classroom to the field for first hand experience applying WASH methods.
MILKEN	PubH	Grad	6133	Social Dimensions of Climate Change and Health	Explore the drivers of climate change and outcomes with particular focus on health dimensions. Will address drivers, obstacles, vulnerabilities, inequality and adaptation as well as technical and social solutions.
MILKEN	PUBH	Grad	6199	Special Topics: Food and Global Environment	In-depth examination of a particular facet of public health. Topics and prerequisites vary.
MILKEN	PubH	Grad	6219	Information Sources in Environmental and Occupational Health	
MILKEN	PubH	Grad	6239	Foodborne and Waterborne Diseases	Foodborne and waterborne toxicants; diseases linked to eating and drinking and their prevention. Topics include transmission of disease and disease processes; microbial toxins, mycotoxins, chemical toxins, bacterial infections (e.g., salmonellosis, shigellosis, vibrio, listeria), virus and parasitic infections; issues in food and water safety.
MILKEN	PubH	Grad	6362	Civil Rights Issues/Health Care	
MILKEN	PubH	Grad	6401	Comparative Regional Determinants	Examines the set of social, cultural and economic issues most central to shaping health in each of the world's main regions. Overseas Learning Collaboration program in Bangladesh.
MILKEN	PUBH	Grad	6402	Washington Seminar	This seminar course will provide an overview of global health policy and practice institutional resources in Washington DC. Students gain an understanding of how global health issues are framed, presented and biased in a multi-institutional setting. This is a collaborative learning exercise where simple web based tools will be used to develop a virtual classroom of the current global health policy and practice dialogue among Washington DC based governmental, multilateral, NGO, private sector and policy institutes.
MILKEN	PubH	Grad	6440	Global Health Economics and Finance	Fundamentals of macro- and microeconomics and financial analysis in international health including degree of centralization, public-private sector roles, and roles of international donor agencies.
MILKEN	PubH	Grad	6482	International Food and Nutrition Programs and Policy	Examines the major food and nutrition problems internationally, and the policies and programs aimed at addressing food insecurity, under- and over- nutrition, and micronutrient deficiencies. Through a combination of lectures (some delivered by invited experts), discussion sessions, seminal literature, and policy/program critique, the course strives to provide the background knowledge, state of the art strategies, and analytical tools necessary for future work in international nutrition.

MILKEN	PubH	Grad	6485	Prevention and Control of Water and Sanitation Diseases	This course will focus on problems associated with providing adequate water and sanitation in developing countries and diseases like schistosomiasis, cholera, dysentery & typhoid. Innovative tools and solutions for improving water supply and sanitation in developing countries will also be discussed.
MILKEN	PubH	Grad	6487	Emerging Zoonotic Diseases and Global Food Production	Analysis of trends in emerging zoonotic diseases and their links to global food production. Case studies on the use of surveillance systems and outbreak detection techniques to monitor emerging zoonotic diseases. Development of skills to analyze surveillance systems, policy reports, and literature related to emerging zoonotic diseases and food-borne outbreaks within a global context
MILKEN	PubH	Grad	6550	Maternal Health I	Public health issues affecting the health and well-being of women, children, and families. A multidisciplinary perspective that integrates the biological, demographic, epidemiological, economic, behavioral, social, cultural and environmental aspects.
MILKEN	PubH	Grad	6551	Maternal & Child Health II	Public health issues affecting the health and well-being of women, children, and families. A multidisciplinary perspective that integrates the biological, demographic, epidemiological, economic, behavioral, social, cultural and environmental aspects.
MILKEN	PubH	Grad	6555	Reproductive Health: US and Global Perspective	Reproductive health from a variety of public health perspectives, from defining reproductive health, past perspectives, needed improvements, and the factors that influence reproductive health.
MILKEN	PubH	Grad	6556	Maternal & Child Health Nutrition	Covers the nutritional needs of women during the child bearing years, infants, children and adolescents. The course emphasizes the life course approach to nutrition and has a special emphasis on the effects of diet during infancy on obesity and degenerative diseases in later life. Students will examine the biological basis of nutrition, identify risk factors associated with poor nutrition in individuals and populations and evaluate domestic and international programs. Summer (1-credit) and Spring (2-credits).
MILKEN	PubH	Grad	6558	Women, Gender, and Health	Focuses on gender as a social determinant of health. Emphasis will be placed on examining the frameworks that are used in public health research to understand gender-based issues and how these frameworks affect the types of programs and intervention efforts developed.
MILKEN	PubH	Grad	6562	Physical Activity and Obesity Interventions: From the Individual to the Environment	This course will broadly examine the public health issues related to physical activity and obesity, particularly as they relate to solutions for addressing individual factors and the obesogenic environment. Students will gain a further understanding of the social, physiological, behavioral, and environmental factors related to both obesity and physical activity. The course will focus on examining multiple levels of solutions, specifically: 1) individual and behavioral interventions; 2) school-based and community-level interventions; 3) environmental interventions; 4) policy-level interventions. Students will be expected to critically evaluate the necessary components of interventions, and apply that knowledge to future programmatic efforts.
MILKEN	PubH	Grad	6610	Public Health Nutrition Practice and Leadership	This course provides an overview of public health nutrition practice. Students develop communication, management and leadership skills necessary for successful careers. Students will also explore potential practicum and culminating experience options, and how to use these experiences to achieve their career goals. This course is designed for first year students in the public health nutrition MPH program.
MILKEN	PubH	Grad	6611	Nutrition Assessment	This course examines the anthropometric, biochemical, clinical and dietary methods for assessing nutritional status in individuals. The process of conducting a food and nutrition environment assessments will also be addressed.
MILKEN	PubH	Grad	6612	Food and Water Systems in Public Health	This course will take a systems approach to understanding food and water systems and the associated public health issues. We will discuss how our current food system evolved, and how issues such as climate change and population growth may affect food and water systems in the future. The role of public health practitioners in meeting the population's need for safe, sufficient and nutritious food and clean drinking water will be discussed. The course will also examine policies, programs, and proposals aimed at creating healthier, more sustainable food and water systems.
MILKEN	PubH	Grad	6613	US Food Policy and Politics	The programs, regulations and legislation that pertain to food production, food safety, nutrition assistance and dietary guidance in the United States at the federal, state and local levels.
MILKEN	PubH	Grad	6699	Designing Healthy Communities	
MILKEN	PubH	Grad	8411	Advanced Topics: Principles of Environmental Health Risk Science	This course provides the doctoral student with a comprehensive orientation to the frameworks, principles and issues involved in assessing, managing and communicating environmental health risks. This fundamental, interdisciplinary course is designed to foster dialogue and insights about contemporary risk science and management issues, including ethical concerns and technical issues that influence policy making.
MILKEN	PubH	Grad	8412	Advanced Topics: Environmental and Occupational Health Research and Practice	This course exposes students to the theory and reality of both research and practice in environmental and occupational health. There is an emphasis on the use of public health science in policy and regulatory decisions.
PROVOST	SUST	Undergrad	1001	Introduction to Sustainability	
PROVOST	SUST	Undergrad	2002	Sustainable Cities	
PROVOST	SUST	Undergrad	2003	The Sustainable Plate	
PROVOST	SUST	Undergrad	3096	Directed Research in Sustainability	
PROVOST	SUST	Undergrad	3097	Internship in Sustainability	
PROVOST	SUST	Undergrad	3098	Community Service in Sustainability	
SEAS	CE	Undergrad	1010	Introduction to Civil and Environmental Engineering	An introduction to the profession of civil and environmental engineering. Field visits and laboratory exercises complement classroom instruction.
SEAS	CE	Undergrad	1020	Introduction to a Sustainable World	The science underlying the basic processes that gave rise to the world we live in and that maintain its viability for human life. Ecosystem-functioning environmental issues, such as greenhouse gas emission and ozone, with current efforts to resolve them. Technological innovations in the context of sustainability.

SEAS	CE	Undergrad	2510	Environmental Sustainability	An introduction to environmental sustainability with focus on the nexus of water, energy, and climate; energy demands of water systems, water footprints of energy generation, and how the two valuable resources are limiting each other; technologies and research frontiers toward a sustainable water and energy supply.
SEAS	CE	Undergrad	3140	Sustainability in Engineering Materials	Sustainable engineering: overall materials energy needs/properties and impacts; load resistance and aging, thermodynamics, water conservation, heat transfer, use of energy-efficient materials in construction, life-cycle assessment
SEAS	CE	Undergrad	3520	Environmental Engineering 1: Water Resources and Water Quality	Physical and chemical analyses of water quality and characteristics. Microbiology of water and pathogens. Introduction to water treatment processes involving coagulation, flocculation, filtration, and disinfection.
SEAS	CE	Undergrad	3521	Environmental Engineering Laboratory	Laboratory experiments for physical and chemical analyses of water and wastewater. Measurement of turbidity, alkalinity, dissolved oxygen, BOD, COD, suspended solids, and optimum coagulant dose using jar tests.
SEAS	CE	Undergrad	3730	Sustainable Urban Planning Dynamics	Human and physical processes shaping urban environments; human–environment interactions in the context of an urban region; urban design, materials, transport, planning, and regulation.
SEAS	CE	Grad	4410	Introduction to Geotechnical Engineering	Soils and rock formation, soil composition, permeability, seepage and flow net analysis, stresses in soil medium, consolidation and settlement, shear strength of soil, analysis of lateral earth pressures, soil compaction.
SEAS	CE	Grad	4411	Geotechnical Engineering Laboratory	Laboratory experiments to evaluate liquid and plastic limits, grain-size distribution, shear strength, compressibility, permeability, and moisture–density relationship of soils.
SEAS	CE	Grad	4450	Introduction to Geo-Environmental Engineering	Characterization of soils and wastes, engineering properties of soils and geo-synthetics, fundamental concepts of fate and transport of contaminants, common practice in design and construction of waste containment systems, current methods for remediation of contaminated groundwater and soils
SEAS	CE	Grad	4530	Environmental Engineering II: Water Supply and Pollution Control	Introduction to wastewater treatment systems including clarification, suspended and attached growth processes. Use of dissolved oxygen models. Water supply and wastewater collection systems, applied hydraulics of pipelines and pumps. Planning to meet quality needs and regulatory requirements.
SEAS	CE	Grad	4620	Hydrology and Hydraulic Design	Descriptive hydrology: hydrologic cycle, precipitation, stream flow, evaporation, and transpiration. Quantitative hydrology: hydrograph analysis, hydrographs of basin outflow, storage routing. Probability concepts in hydrology: flood frequency, rainfall frequency, stochastic hydrology. Culverts and stilling basins.
SEAS	CE	Grad	6501	Environmental Chemistry	Principles of chemistry of natural waters, water supplies, wastewaters, hazardous wastes. Stoichiometry, equilibrium, solubility, kinetics, organic chemistry, biochemistry, analytical techniques. Examples from water/wastewater practice to illustrate applications.
SEAS	CE	Grad	6503	Principles of Environmental Engineering	Basic concepts of water, air, and terrestrial environments and interrelationships among them. Principles of environmental chemistry and microbiology. Assessment of environmental quality and impacts. Environment and health. Water and wastewater systems. Legal and regulatory controls.
SEAS	CE	Grad	6504	Water and Wastewater Treatment Processes	Theory and application of commonly used processes. Sedimentation, coagulation, filtration, disinfection, gas transfer, activated sludge, trickling filters, oxidation ponds, sorption, and sludge stabilization and disposal. Process combinations to produce treatment systems.
SEAS	CE	Grad	6505	Environmental Impact Assessment	Public policy and legislation on environmental quality. Methods for assessing impacts of engineering projects. Technology for assessing impacts on air, water, and land environments, applied to transportation facilities, water and wastewater facilities, industrial and community development.
SEAS	CE	Grad	6506	Microbiology for Environmental Engineers	Principles and applications of advanced treatment systems for water, wastewater, and hazardous wastes, including: biological nutrient removal, oxidation-reduction processes, stripping, sorption, membrane processes, chemical precipitation, others.
SEAS	CE	Grad	6507	Advanced Treatment Processes	Principles and applications of advanced treatment systems for water, waste-water, and hazardous wastes, including: biological nutrient removal, oxidation-reduction processes, stripping, sorption, membrane processes, chemical precipitation, others.
SEAS	CE	Grad	6508	Industrial Waste Treatment	Types of industries, waste sources. Characteristics, measurements, and evaluation. Minimization and reuse. Treatment process selection, development, and design. Regulations, permits, standards, monitoring, and pretreatment.
SEAS	CE	Grad	6509	Introduction to Hazardous Wastes	Regulations, including RCRA and Superfund. Transport and fate of hazardous substances. Elements of environmental toxicology, risk assessment, and hazard ranking. Monitoring, data collection, and evaluation. Waste minimization. Case histories.
SEAS	CE	Grad	6605	Groundwater and Seepage	Permeability theory of groundwater flow, flow nets, analogs, computer solutions; applications to engineering problems such as excavation dewatering, flow through dams, stabilization of earth slopes.
SEAS	CE	Grad	6607	Water Resources Planning and Control	The parameters of water resources planning and control, economics of water resources and related natural resources, economics of water-quality control, physical parameters of water resource development, water resources law. Prerequisite: approval of department.
SEAS	CE	Undergrad	2710	Intro to Transportation Engineering	
SEAS	CE	Grad	6603	Design of Dams	
SEAS	CE	Grad	6604	Advanced Hydrology Numerical Methods in	
SEAS	CE	Grad	6609	Environmental and Water Resources	
SEAS	CE	Grad	6342	Structural Design to Resist Natural Hazards	
SEAS	CE	Grad	6610	Pollution Transport System	Distribution of pollutants in natural waters and atmosphere, diffusive and advective transport, mathematics for stream pollutant deoxygenation rates, groundwater pollution transport, sediment transport, thermal transport, numerical simulation of pollutant transports in streams and estuaries.

SEAS	CSCI	Grad	4532	Information Policy	Roles, issues, and impacts of computer-based information systems in national and international arenas, focusing on privacy, equity, freedom of speech, intellectual property, and access to personal and governmental information. Professional responsibilities, ethics, and common and best practices in information use.
SEAS	ECE	Grad	6690	Power Systems Economics	Overview of electrical power market economics and market participants. Production pricing and market clearing pricing. Market ancillary service pricing. Location marginal pricing and zonal pricing schemes. New electrical generation entrant impact. Investing in generation and in transmission. Independent power producers and independent transmission owners.
SEAS	ECE	Grad	6691	Power Systems Reliability	Overview of probability theory and basic power market reliability modeling and evaluation. Generation supply reliability techniques. Reliability of transmission system and delivery of supply. Loss of load probability evaluation. Forced and maintenance outages. Load forecasting and probability of interconnected systems. Risk evaluation and operating reserves.
SEAS	ECE	Grad	6699	Energy and Sustainability	Energy sources, consumption, and the societal and environmental impacts. Energy generation and harvesting technology. Thermodynamics and efficiency limits. Nanotechnology for sustainability. Emission and pollution. Growth models; learning curves. Life-cycle analysis. Energy in an international perspective: origins, crises, and solutions.
SEAS	EMSE	Undergrad	3740	Systems Thinking and Policy Modeling I	Introduction to systems thinking and the system dynamics approach to policy analysis, with applications to business management and public policy. Causal-loop and stock and flow models of business growth, technology adoption, and marketing. Use of role-based games to explain key principles of systems. Use of simulation software to model problems and case studies.
SEAS	EMSE	Undergrad	3855	Critical Infrastructure Systems	A survey of major topics in engineered infrastructure systems, such as asset management, environmental impact analysis, input-output life cycle analysis and inoperability modeling, infrastructure risk and reliability analysis, resilience and resistance to natural hazards or service disruptions, and development of infrastructure sustainability metrics.
SEAS	EMSE	Grad	4410	Survey of Finance and Engineering Economics	Survey of material relevant to financial decision-making for engineering activity. Includes traditional engineering economy topics; fundamentals of accounting; and financial planning, budgeting, and estimating applicable to the management of technical organizations.
SEAS	EMSE	Grad	6200	Policy Factors in Environmental and Energy Management	Exploration of the policy development process from several different but integrated perspectives. Focus on areas of environmental and energy management and use of current case studies to develop a framework of understanding to support decisions in a broad variety of management settings.
SEAS	EMSE	Grad	6220	Environmental Management	Technical, economic, political, administrative, and social forces influencing the quality of the environment and the use of resources. Government and industrial programs to combat pollution of the air, soil, and water; existing and pending pertinent legislation; theoretical aspects of specific management problems.
SEAS	EMSE	Grad	6225	Air Quality Management	The nature of critical local, regional, continental, and global problems associated with air pollution and the historical evolution of such problems. The complex regulatory and institutional framework controlling air quality management in the U.S. Current air quality management concepts and processes.
SEAS	EMSE	Grad	6230	Hazardous Waste Management and Cleanup	Hazardous waste management and cleanup processes used in the U.S. and around the world. The roles of the relevant federal, state, and local government agencies; major hazardous waste laws and regulations. Planning, assessment, investigation, design, and construction phases of hazardous waste remediation projects.
SEAS	EMSE	Grad	6235	Water Quality Management	The nature of point and non-point sources of surface and ground water pollution and the statutory, regulatory, and institutional framework controlling water quality management activities in the U.S. Current approaches to water quality protection and enhancement. The role of engineered treatment processes in water quality management.
SEAS	EMSE	Grad	6240	Environmental Hazard Management	Geological, meteorological, radiological, chemical, and biological hazards facing the United States and international communities. Organizational responsibilities for hazard identification and risk management. Communication and perceptions of vulnerability and risk. Challenges to local governments and communities.
SEAS	EMSE	Grad	6245	Analytical Tools in Environmental Management	A survey course in environmental management, focusing on tools to assess the environment: quantitative risk assessment, environmental valuation methodologies, Congressional activities, and environmental laws. The regulatory process as it relates to environmental management. Risk assessment and modeling approaches to solving environmental problems.
SEAS	EMSE	Grad	6260	Energy Management	Examination of the range of available energy resources, trends in their use, the programs and organizations that have developed and evolved to address problems associated with energy resource use.
SEAS	EMSE	Grad	6285	Analytical Tools for Energy Management	Analytical tools needed to manage energy resources at the facility level. Energy technologies: instrumentation, measurement, and control. Energy auditing; conservation techniques, financial and economic analysis, and maintenance of energy budgets. Functions of an energy management office of a large organization.
SEAS	EMSE	Grad	6290	Climate Change	What is known and unknown in climate change science. Strategies and technologies for mitigation of and adaptation to the impact of climate change. International issues related to avoidance, challenges posed by as yet undefined effects, and responsibilities mandated by existing and proposed laws, executive orders, regulations, and court rulings.
SEAS	EMSE	Grad	6295	Environmental Security	Overview of potential terrorist attack vectors on government-owned and private sector assets most directly tied to environmental health and safety. Homeland security requirements for environmental infrastructure, water supplies, energy sources, nuclear waste, and other programs vulnerable to targeting. Courses of action designed to prevent attacks.

SEAS	EMSE	Grad	6320	International Disaster Management	Guiding principles, key institutions, operational requirements, policy issues, and broad fundamentals associated with international disaster risk reduction and humanitarian response to natural and man-made disasters and complex emergencies.
SEAS	EMSE	Grad	6325	Medical and Public Health Emergency Management	Medical and public health management issues encountered in crises, emergencies, and disasters for non-medical emergency managers. The spectrum of medical, public health, psychological and behavioral problems; incident management organization and processes that address these concerns and integrate medical and public health assets into the response.
SEAS	EMSE	Grad	6350	Hazard Mitigation in Disaster Management	Hazard mitigation and its role in disaster management; analysis of past and current government and private-sector programs; examination of new approaches; structural versus nonstructural actions; mitigation of terrorist attacks.
SEAS	EMSE	Grad	6410	Survey of Finance and Engineering Economics	Survey of material relevant to financial decision making for engineering activity. Includes traditional engineering economy topics; fundamentals of accounting; and financial planning, budgeting, and estimating applicable to the management of technical organizations.
SEAS	EMSE	Grad	6740	Systems Thinking and Policy Modeling I	Introduction to systems thinking and the system dynamics approach to policy analysis, with applications to business management and public policy. Causal-loop and stock and flow models of business growth, technology adoption, and marketing. Use of role-based games to explain key principles of systems. Use of simulation software to model problems and case studies.
SEAS	EMSE	Grad	6291	Greenhouse Gas Measurement and Reporting	
SEAS	EMSE	Grad	6292	Greenhouse Gas Mitigation Greenhouse Gas Management	
SEAS	EMSE	Grad	6293	Assurance and Information Systems Design	
SEAS	EMSE	Grad	6745	Systems Thinking and Policy Modeling II	Case studies in dynamic policy analysis. Use of microcomputers in simulation. The class collectively models and simulates a social system to explore policy options.
SEAS	EMSE	Grad	6992	Beyond Compliance: Next Generation Environmental Self Governance	Special Topics
SEAS	MAE	Grad	4149	Thermal Systems Design	Completion of a thermal systems design project that requires integration of engineering science, economics, reliability, safety, ethics, professional responsibility, and social considerations. Development and use of design methodology, optimization, feasibility considerations, detailed system descriptions, and presentation of results.
SEAS	MAE	Grad	6262	Energy Systems Analysis	Analysis of energy resources and conversion devices. Statistical data analysis, forecasting, I/O, and net energy analyses, mathematical modeling.
SEAS	MAE	Grad	6291	Special Topics in Mechanical Engineering	Only applicable when Nanotechnology in Energy Applications is being taught
UW	UW	Undergrad	1020	The Good Food Revolution: Food Movements and Rhetoric of Social Change	Special Topics
UW	UW	Undergrad	1020	Frankenstorms, Politics and Media: Communicating Climate Change in a Polarized Atmosphere	Special Topics
UW	UW	Undergrad	1020	Turf Wars: Architectuer, Urban Planning, and Ecology	Special Topics
UW	UW	Undergrad	1020	University Writing Topics: American Environmental Advocacy	Special Topics
UW	UW	Undergrad	1020	Extreme Weather, Extreme Politics	Special Topics
UW	UW	Undergrad	1020	Writing for Social Change: Writing with DC Community Organizations	Special Topics
SEAS	MAE	Grad	6263	Advances in Energy Engineering	
SEAS	MAE	Grad	6248	Combustion	