

The George Washington University Sustainability Courses

All course numbers between 1000 and 5999 indicate an undergraduate course. All number above 6000 indicate a graduate level course.

Columbian College of Arts and Sciences

Course Number	Course Name
AMST 1000	Food Politics
AMST 3950.13	Reading the Environment: Popular Culture and the Politics of Sustainability
ANTH 3991	Topics: Anthropology and Environmentalism
ANTH 6302	Resources, Consumption and the Environment
ANTH 6702	Anthropology of the Environment in Latin America
BISC 2454	General Ecology
BISC 2459	Ecology, Economy and Sustainability
BISC 3325	Environmental Physicology
BISC 3460	Conservation Biology
CHEM 1000	Pathway to a Renewable Chemistry Economy
CHEM 2085	Environmental Chemistry
ECON 2136	Natural Resources and Environmental Economics
ECON 2151	Economic Development
ECON 2195	Topics in the Economics of Sustainability
ECON 2195	Energy Economics
ECON 6237	Economics of the Environment and Natural Resources
ECON 6250	Survey of Economic Development
ECON 8351	Development Economics I
ECON 8357	Regional Economics
ECON 8395	Topics in Environmental and Resource Economics
ECON 8485	Urban Economics
ENRP 6101	Environmental Sciences I
ENRP 6102	Environmental Sciences II
ENRP 6140	Environmental Impact Statement Procedures and Environmental Law
ENRP 6145	Environmental Justice and Policy
ENRP 6295	Research Topics in Environmental Research Policy
GEOG 1003	Society and Environment
GEOG 2108	Weather and Climate
GEOG 2108	Weather and Climate
GEOG 2110	Climate and Human Ecology
GEOG 2133	People, Land and Food
GEOG 2134	Energy Resources
GEOG 2136	Water Resources
GEOG 2137	Environmental Hazards

GEOG 3132	Environmental Quality and Management
GEOG 3143	Urban Sustainability
GEOG 3198	Environmental Law
GEOG 6219	Urban Climate
GEOG 6220	Climate Change
GEOG 6222	Resources and the Environment
GEOG 6230	Environmental Issues in Development
GEOG 6244	Urban Sustainability
GEOL 1005	Environmental Geology
GEOL 3131	Global Climate Change
GEOL 3191	Geology of Energy Resources
GEOL 3193	Intro to Environmental Law
HIST 3001	Environmental History
HONR 1034	Global Climate Change Biology
HONR 1034	Our Place in Nature
HONR 2047	Climate and Human Evolution
HONR 2048	School Food Policy
HONR 2175	Anthropology and Environmentalism
HONR 2175	The Political Economy of Oil in the Persian Gulf
HONR 5701	The World on a Plate
IAD 3405	Sustainability/LEED: Architecture and Design
IAD 6405	Sustainability/LEED: Architecture and Design
ORSC 6240	Corporate Responsibility
PHIL 2281	Philosophy of the Environment
PHIL 6231	Economic Justice
PSC 2224	Domestic Energy Policy
PSC 2224	Environmental Law and Policy
PPPA 2701	Sustainability and Environmental Policy
PPPA 6018	PPOL Public Pol Governance & Glob Mrkt
PPPA 6066	Environmental Policy
SMPA 3193	Sustainability Reporting
SMPP 6290	Corporate Environmental Management and Policy
SOC 2181	Sociology of Food: School Food Policy
SPAN 3022	Topics for Advanced Oral Proficiency: Environmental and social sustainability in Latin America
TRDA 6204	Personal Aesthetics II: The Environment
UW 1020	University Writing Topics: American Environmental Advocacy
UW 1020	Food Movements and Rhetoric of Social Change
UW 1020	Frankenstorms, Politics and Media: Communicating Climate Change in a Polarized Atmosphere

Elliott School of International Affairs	
Course Number	Course Name
IAFF 3179	Energy and the Environment
IAFF 3180	Global Energy Security
IAFF 3183	Challenges of Globalization for Sustainable Development
IAFF 3190	International Environmental Policy
IAFF 3190	International Oceans Policy
IAFF 6119	The Arctic: New Frontier for Energy, Environment, and Development
IAFF 6138	Climate Change and Sustainable Development
IAFF 6138	Global Food Security
IAFF 6138	Financing Climate Change Policy
IAFF 6138	Environment and Development
IAFF 6151	Environmental Policy
IAFF 6158	International Issues in Energy
IAFF 6186	Environmental Security
IAFF 6186	Energy Security
IAFF 6190	International Climate Change Policy
IAFF 6198	International Climate Policy
IAFF 6378	Oil: Industry, Economy, Society
Milken Institute School of Public Health	
Course Number	Course Name
HLWL 1104	Outdoor and Environmental Education
EXSC 1114	Community Nutrition
EXSC 2119	Basic Nutrition
EXSC 2122	Food Systems and Public Health
PubH 2114	Environment, Health and Development
PubH 3132	Health and the Environment
PubH 3133	Global Health and Development
PUBH 3150	Sustainable Energy and Environmental Health
PUBH 3190	Sustainable Energy and Environmental Health
PubH 6004	Environmental and Occupational Health in a Sustainable World
PubH 6099	Emerging Zoonotic Disease and Global Food
PubH 6099	US Food Policy and Politics
PubH 6121	Environmental and Occupational Epidemiology
PubH 6122	Protecting Public Health and the Environment: Policies, Politics and Programs
PubH 6124	Problem Solving in Environmental and Occupational Health
PubH 6125	Intro to Children's Health and the Environment
PubH 6126	Assessment and Control of Environmental Hazards
PubH 6127	Applied Environmental Health Microbiology

PubH 6128	Global Environment and Occupational Health
PubH 6129	Problem Formulation in Environmental and Occupational Health
PubH 6130	Sustainable Energy and Environment
PubH 6132	Water Sanitation and Hygiene in Disaster Relief Management and Development
PubH 6133	Social Dimensions of Climate Change and Health
PubH 6219	Information Sources in Environmental and Occupational Health
PubH 6482	International Food and Nutrition
PUBH 6487	Emerging Zoonotic Diseases and Global Food Animal Production
PubH 6612	Food and Water Systems in Public Health

School of Business

Course Number	Course Name
FINA 6290	Walkable Urban Development, Strategy and Place Management
TSTD 6249	Sustainable Destination Management
SMPP 6210	Strategic Environmental Management
SMPP 6211	Corporate Environmental Management in Developing Countries
SMPP 6271	Corporate Environmental Management and Policy
SMPP 6290	Strategy for Sustainable Enterprise
SMPP 6290	Sustainability Management and Policy
SMPP 6290	Clean Tech and Competitive Energy Markets
SMPP 6290	Sustainability and Responsible Investment in Today's Market
SMPP 6290	Strategic Environmental Management Systems
SMPP 6290	Energy Consulting Practicum
SMPP 6290	Strategy and International Political Economy
SMPP 8391	Sustainability Management and Policy

School of Engineering and Applied Science

Course Number	Course Name
CE 1010	Introduction to Civil and Environmental Engineering
CE 1020	Introduction to a Sustainable World
CE 2510	Environmental Sustainability
CE 3140	Sustainability in Engineering Materials
CE 3520	Environmental Engineering 1: Water Resources and Water Quality
CE 3521	Environmental Engineering Laboratory
CE 3730	Sustainable Urban Planning Dynamics
CE 4530	Environmental Engineering II: Water Supply and Pollution Control
CE 6501	Environmental Chemistry
CE 6503	Principles of Environmental Engineering
CE 6504	Water and Wastewater Treatment Processes
CE 6505	Environmental Impact Assessment
CE 6607	Water Resources Planning and Control

ECE 6699	Energy and Sustainability
EMSE 3740	Systems Thinking and Policy Modeling I
EMSE 6200	Policy Factors in Environmental and Energy Management
EMSE 6220	Environmental Management
EMSE 6225	Air Quality Management
EMSE 6230	Hazardous Waste Management and Cleanup
EMSE 6235	Water Quality Management
EMSE 6240	Environmental Hazard Management
EMSE 6245	Analytical Tools in Environmental Management
EMSE 6260	Energy Management
EMSE 6290	Climate Change
EMSE 6320	International Disaster Management
EMSE 6295	Environmental Security
EMSE 6740	Systems Thinking and Policy Modeling I
EMSE 6745	Systems Thinking and Policy Modeling II
EMSE 6992	Beyond Compliance: Next Generation Environmental Self Governance
EMSE 6992	Implementing Environmental and Energy Management Systems
MAE 6262	Energy Systems Analysis

School of Law

Course Number	Course Name
LAW 6430	Environmental Law
LAW 6431	Wildlife and Ecosystems Law
LAW 6432	Air Pollution Control
LAW 6434	Water Pollution Control
LAW 6435	Trade and Sustainable Development
LAW 6437	Coastal, Navigation, and Wetlands Resource Law
LAW 6438	Energy Law and Regulation
LAW 6439	Energy and the Environment
LAW 6440	Natural Resources Law
LAW 6442	Control of Solid and Hazardous Wastes
LAW 6443	Oil and Gas Law
LAW 6444	Regulation of Toxic Substance Risk
LAW 6449	Environmental and Toxic Torts
LAW 6450	Federal Facilities Environmental Law Issues
LAW 6452	Environmental Issues in Business Transactions
LAW 6454	International Environmental Law
LAW 6455	International Climate Change Law
LAW 6457	Sustainable Regional Growth Seminar
LAW 6458	Environmental Negotiations
LAW 6459	Atomic Energy Law

LAW 6460	Environment and Energy Policy Practicum
LAW 6465	Environmental Crimes Project
LAW 6466	Environmental Law Seminars (Food and Agriculture, Energy Commodities Trading, Comparative Energy Regulatory Systems)
LAW 6467	Environmental Legislation Project
LAW 6469	Environmental Lawyering
LAW 6571	Human Rights and Environmental Protection
LAW 6627	Environmental Law Clinic

College of Professional Studies

Course Number	Course Name
PSUS 6235	Special Topics in Urban Sustainability
PSLD 6260	Introduction to Sustainable Design
PSLD 6261	Ecology of the Build Environment
PSLD 6262	Tools for Sustainable Design
PSLD 6264	Native Plants I
PSLD 6265	Native Plants II
PSLD 6266	Ecological Restoration
PSLD 6268	Sustainable Design Methods
PSLD 6269	Sustenance and the Landscape
PSLD 6270	Sustainable Design Charrette
PSIS 4137	Alternative Energy Sources
PSUS 6201	Principles of Sustainable Urban Planning
PSUS 6202	Economics of Sustainable Communities
PSUS 6204	Land Use: Law, Design and Public-Private Partnerships
PSUS 6210	Sustainable Transportation Systems
PSUS 6211	Sustainable Urban/Regional Land Use
PSUS 6212	Sustainable Communities
PSUS 6221	Planning Resilient and Low Carbon Cities
PSUS 6221	GHG Accounting and Management
PSUS 6222	Climate Change Energy-Efficiency and Renewable Energy Strategies and Operations in the Building Sector
PSUS 6223	Climate Change Energy-Efficiency and Renewable Energy Strategies and Operations in the Transportation Sector
PSUS 6224	Climate Change Energy-Efficiency, Renewable Energy, and Restoration Strategies and Operations in Production Sectors
PSUS 6230	Studio: Sustainable Community Design
PSUS 6231	Practicum in Sustainable Technology Management and Policy
PSUS 6233	Capstone

Office of the Provost - These are considered "Pan-University" courses

Course Number	Course Name
SUST 1001	Introduction to Sustainability
SUST 3096	Directed Research in Sustainability
SUST 3097	Internship in Sustainability

SUST 3098

Community Service in Sustainability

The George Washington University Courses that Include Sustainability

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Columbian College of Arts and Sciences

Course Number	Course Name	Course Description
AMST/PSC 2120	Freedom in US Thought & Popular Culture	America was founded on the premise of providing freedom to its people. But what, exactly, is freedom? The question has been debated in America since its founding and continues today; this course examines varied answers provided by American political thought and popular culture.
AMST 6190.82/ JSTD 6001.80/ HIST 6001.80	Contemporary Jewish Life	This seminar explores the changing nature of Jewish life domestically as well as transnationally from the 1950s on through our own day. Training its sights on a diverse array of historical events and cultural phenomena, from the impact of the Holocaust and the rise of the State of Israel to suburbanization and technology, it looks at the ways in which contemporary Jews, especially those in the United States, reckoned with rupture, dissent and, above all, freedom.
AMST 6495.80	Historic Preservation: Principles and Methods	The scope and purpose of the preservation movement in the United States, with focus on developments since the 1960s. Preservation theories, attitudes toward the past and toward design, the intent and impact of legislation, approaches to documentation, the concept of significance, and preservation as an instrument of change.
ANTH 1001	Introduction to Biological Anthropology	Survey of human evolution, genetics and physical variation, and primatology. Regular laboratory exercises.
ANTH 1002	Sociocultural Anthropology	Survey of the world's cultures, illustrating the principles of cultural behavior.
ANTH 3501	Anthropology of Development	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.
ANTH 3504	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.
ANTH 3513	Human Rights and Ethics	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.

ANTH 3803	Old World Prehistory: First Farmers to First Cities	Survey of prehistory in Europe, Africa, and Asia from the earliest hominid cultures to the beginnings of agriculture.
ANTH 6302	Culture, Risk, and Security	This course provides a perspective from cultural anthropology on risk and security. It explores what "risk," and "security" mean to people cross-culturally and how they are interrelated by looking at a range of topical issues ranging from environmental pollution and political violence to hand-washing, domestic violence, and unemployment.
ANTH 6505	Medical Anthropology	Concepts and theories in contemporary medical anthropology, including "critical" versus "conventional" medical anthropology, changes in approaches since the mid-twentieth century; structural and cultural construction of illness and suffering; ethnographic and epidemiological perspectives.
ARTH 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.
BISC 0801	Do We Need Biotechnology	This course introduces students to modern biotechnological procedures and allows them to work in the laboratory on projects involving the manipulation of DNA and living cells. They will use their knowledge to critically assess the benefits, pitfalls, and possible consequences that the "Biotech Century" may pose for our world.
BISC 1000	Do We Need Biotechnology	This course introduces students to modern biotechnological procedures and allows them to work in the laboratory on projects involving the manipulation of DNA and living cells. They will use their knowledge to critically assess the benefits, pitfalls, and possible consequences that the "Biotech Century" may pose for our world.
BISC 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.
BISC 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.
BISC 1111	Cells and Biology	Nutrition and metabolism, cellular and developmental biology, genetics, and molecular biology of plants and animals.
BISC 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.
BISC 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.

BISC 2331	Insect Biology	Overview of the class Insecta, focusing on insect external and internal morphology, classification, ecology/behavior, collection, and specimen preparation.
BISC 2337	Microbiology	Survey of the major groups of microorganisms with emphasis on structure, physiology, ecology, pathogenesis, and biotechnology. Antibiotic resistance and emerging diseases.
BISC 2337W	Microbiology	Survey of the major groups of microorganisms with emphasis on structure, physiology, ecology, pathogenesis, and biotechnology. Antibiotic resistance and emerging diseases.
BISC 2450	Organic Evolution	Synthetic theory of organic evolution, including population biology, speciation, adaptation, macroevolution, systematics, biogeography, and the geologic record.
BISC 2452	Animal Behavior	An evolutionary approach to the study of animal behavior, emphasizing behavioral ecology and sociobiology.
BISC 2453	Animal Behavior Lab	Demonstration of methods used in the study of animal behavior, including techniques of observation, basic statistical analysis, and experimental design. Field trips, discussion of research papers, and student-generated independent or small-group project.
BISC 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.
BISC 2580W	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.
BISC 3458	Plant Comparative Structure and Function	Fundamental principles of how organisms are built, investigating trade-offs and coordination in design, how variation in structure influences physiological function in different ecological settings, and how relations among plants shape structure and function and responses to ecological gradients.
BISC 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.
BISC 3461	Plant-Animal Interactions	Review of the major ecological and evolutionary interactions that occur between plants and animals in natural and managed ecosystems.
CHEM 1003	Contemporary Science for Non-Science Majors	Contemporary topics in physical, biological, and medical science.

CHEM 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.
CHEM 3171	Physical Chemistry I	Gas laws, chemical thermodynamics, chemical equilibrium, kinetics, quantum chemistry, atomic and molecular spectra, structure of solids, liquids, and macromolecules.
CHEM 6238	Chemistry of Inorganic Materials	Synthesis, structure, and properties of materials such as ceramics, superconductors, ionic conductors, nanomaterials, and magnetic, optical, and electronic materials. Emphasis on traditional and low-temperature routes.
CHEM 6320-10	Electrochemistry - Charge, Transfer & Storage	Special topic course. Advanced topics offered in a modular format to allow an in-depth examination of a self-selected field of analytical chemistry. One to three topics may be chosen for a given semester. This topic considers elements of chemistry associated with energy production and storage.
CHEM 6350	Organometallic Chemistry	Special topic course. Advanced topics offered in a modular format to allow an in-depth examination of a self-selected field of analytical chemistry. One to three topics may be chosen for a given semester. This topic considers the implications of organometallic compounds a resources for human development.
CHEM 6371	Physical Chemistry I	Gas laws, chemical thermodynamics, chemical equilibrium, kinetics, quantum chemistry, atomic and molecular spectra, structure of solids, liquids, and macromolecules.
ECON 1011	Principles of Microeconomics	Major economic principles, institutions, and problems in contemporary life. Microeconomics—supply and demand, the price system and how it works, competitive and monopolistic markets.
ENG 3730W	Topics in Postcolonial Literature	Historical, critical, and theoretical study of post-colonial literatures—African, Asian, Commonwealth—written in English.
ENRP 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 related to environmental resource policy.

FA 2179	Slow Food Photography	The Slow Food philosophy, begun by Italian political activist Carlo Petrini in 1989, to counter fast food, has become an international movement to re-establish ancestral traditions of growing and preparing food in small community settings. Through the GWU Slow Food Photography course, students investigate contemporary food culture, with an emphasis on the Slow Food movement, while considering the role of the artist as a leader in social change. Through photographic documentation, students explore examples of ecologically balanced food practices, such as urban farms, community gardens, farmers markets and small-scale production facilities in the Washington D.C. region and beyond.
GEOG 2127	Population Geography	Patterns of world population; factors contributing to population pressures, growth, and migrations.
GEOG 2128	Geomorphology	Understanding the nature, origin, and development of landforms in the field and through the use of maps and aerial photos.
GEOG 2140	Cities and Society	The design and function of cities in the United States; contemporary, economic, political, and social change.
GEOG 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.
GEOG 3164	Geography of Africa	Cultural and physical patterns of Africa.
GEOG 3198	Arctic Systems	Special topic course that considers of geographic aspects of topical and future problems of society. This topic focused on urban sustainability and the changing climate dynamics of the Arctic.
GEOG 3810	Building Cities	An examination of historical and contemporary trends and dynamics in urban planning in the United States and abroad.
GEOG 6198	Arctic Systems	Special topic course that considers of geographic aspects of topical and future problems of society. This topic focused on urban sustainability and the changing climate dynamics of the Arctic.
GEOG 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.
GEOG 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.
GEOG 6243	Urban Geography	Topics concerning social, political, economic, and environmental issues in U.S. cities.
GEOG 6265	Geography of Russia and its Neighbors	A deeper understanding of Post-Soviet geography with a focus on the physical and environmental characteristics of the region, geography of natural and human resources, ethnic, cultural and religious diversity, characteristics of economic and political regions, and recent geopolitical developments.

GEOL 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.
GEOL 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.
GEOL 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.
HIST 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.
HONR 1033	Scientific Reasoning and Discovery Proseminar	Using an inquiry-based approach, students learn to identify hidden regularities and patterns in nature that may indicate fundamental unifying principles and laws. The scientific method; evaluation of scientific information; limitations of the scientific process; development of a scientific hypothesis. Tools and methodologies of geology, chemistry, physics, biology, anthropology, and other disciplines.
HONR 1034	Scientific Reasoning and Discovery	Continuation of HONR 1033. Using an inquiry-based approach, students learn to identify hidden regularities and patterns in nature that may indicate fundamental unifying principles and laws. The scientific method; evaluation of scientific information; limitations of the scientific process; development of a scientific hypothesis. Tools and methodologies of geology, chemistry, physics, biology, anthropology, and other disciplines.
HONR 2047	Conflicts in the Persian Gulf--Origins, Evolution and Resolution	Special topic course. Using the tools and modes of inquiry of the social and behavioral sciences, students find ways to understand significant social and political phenomena. Relationships among individuals, collectivities, families, and communities; interactions of psychological, social, political, economic, and historical forces at work in a given culture. This specific topic is focused on political, economic, and social reforms for the Gulf Region. It also considers the ethnic and resource-driven roots of conflict as well as justice and freedom in the region.

HONR 2048	Islamic Economics, Finance and Development	Special topic course. Continuation of HONR 2047. Using the tools and modes of inquiry of the social and behavioral sciences, students find ways to understand significant social and political phenomena. Relationships among individuals, collectivities, families, and communities; interactions of psychological, social, political, economic, and historical forces at work in a given culture. This topic considers issues of globalization and future economic sustainability.
PPPA 6002	Research Methods/Applied Stat	Development of skills and knowledge for conducting original research and critically evaluating empirical studies. Various research designs and data collection techniques are examined. Focus on computerizing data sets for quantitative analysis, analyzing strength of relationships, selecting appropriate statistical techniques, and testing statistical hypotheses.
PPPA 6006	Policy Analysis	Development of skills in conducting and critiquing policy analyses. Application of methodologies used in analyzing possible consequences of specified alternatives as applied in the public policy decision-making process. Appropriate applications and limitations of policy analysis and its relationship to politics and the policy process.
PPPA 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.
PPPA 6085	Community Development Policy and Management	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. Explores a range of community development programs and policy issues, including those related to financing affordable housing, charter schools, community facilities, and small businesses. The course also addresses emerging trends that are likely to affect community development policymakers and practitioners in the future, including use of transit-oriented development, comprehensive community initiatives, and new ways of raising capital for community development projects.
PPPA 6085	Micro-Economics	Considers social justice issues such as the public good, monopolies, and economic externalities.
MSTD 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.

MSTD 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.
ORSC 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.
ORSC 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.
PHIL 1000	The Philosophy of Human Rights	The first third of the course focuses on the development of conceptual and logical issues as well as justifications of human rights from the Enlightenment through the contemporary era. The balance of the course focuses on the universality of human rights and respect for cultural and social diversity. In addition, there will be an emphasis on the application of human rights to global problems such as: poverty, development and the global economy; human rights to environmental equality, self-determination and rights to democratic government; humanitarian intervention, and gender violence and women's human rights.
PHIL 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.
PHIL 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.
PHIL 2135	Ethics and Business in the Professions	Ethical theories and basic concepts for analysis of moral issues arising in business and in professional practice.
PHIL 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.
PHIL 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.

PHYS 1003	Physics for Future Presidents	A serious but accessible presentation of topics important for leaders to know—energy, global climate, high-tech devices, space travel, nuclear weapons, etc. Students possessing any level of scientific background are equipped with the concepts and analytical tools needed to make informed decisions and to argue their view persuasively.
PSC 2220	Public Opinion	How public opinion is measured, how it is shaped, and its consequences for policymaking.
PSC 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.
PSC 2367	Human Rights	Human rights theory, the various movements for human, religious, civil, political, and other rights.
PSC 3192W	Development Challenges in Africa	African countries are some of the fastest growing economies but also some of the most war-torn states. Explanations point to everything from ethnic diversity to poor terrain to corrupt leadership. This course examines many of these theories and ties them to possible policy applications. Along the way, students are called upon to actively engage in the respective literatures and to discuss them in the context of the real world opportunities and constraints in African countries.
SMPA 3194	Development, Governance and Digital Technology	This interdisciplinary course examines the use of information and communication technologies (ICT) by nongovernmental organizations (NGOs), community-based organizations (CBOs), news media, and advocacy groups. We are interested in the role of technology in efforts to strengthen the enforcement of broadly recognized international norms, especially those concerning individual and collective security. Put another way, we are interested in the role of technology in addressing human rights violations.
SMPA 3194	Media, Globalization and Development	Considers the media challenges associated with global sustainable development.
SMPP 6241	Global Corporate Social Responsibility	Analyze why, how and under what conditions global businesses are innovating to address corporate responsibility expectations. Focus on co-creation of value and innovation to create new markets. Examines global impact of corporate responsibility demands on businesses, civil society and public policy.
SMPP 6290	Global Market Governance	This course examines how globalization is affecting traditional approaches to public policies and governance responses. The course will focus on both cases of global public policy and the forms of global governance-conventional and emerging—used in their implementation and enforcement.

SMPP 8331	Strategy Theory and Practice	Develops understanding of the major research streams in business and public policy; exposure to theoretical research frameworks and methodological issues and approaches.
SOC 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.
SOC 2169/W	Urban Sociology	Analysis of the city from a sociological perspective. Topics include a focus on 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.
SOC 6249	Race and Urban Development	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.
SOC 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.
SPAN 2006	Advanced Spanish Language and Cultures II	Continuation of SPAN 2005. Development of advanced Spanish proficiency, with a focus on argumentative speaking and writing. Development of cross-cultural competence and analysis of historical, social, and cultural practices and perspectives of Spanish-speaking societies. Course concentrates on three modules: (1) environmental development, (2) economic and human development, and (3) education and development.

UW 1020	Architecture and Ecology	<p>Are cities greener than suburbs? Is public space a human right? Should all historical buildings be preserved? How does the digital world transform our relationship with the physical world? What do ethics have to do with architecture? How sustainable is sustainability? These are just some of the questions we will tackle in this course. Our readings will cover a wide range of academic disciplines, including Anthropology, Biology, Creative Writing, Digital Media Studies, Environmental Studies, History, Philosophy, and Urban Planning. Our discussions will explore the promises and pitfalls of utopian experiments, suburban developments, and urban renewal projects. We will look both near (GW's proposed Science and Engineering Hall) and far (Earthships, a Southwestern biotecture firm), real (Chicago's Cabrini Green) and imagined (Le Corbusier's "City of the Future"). Our exercises and assignments will help you read critically and write persuasively. In the process, we will come to a better understanding of how we shape our spaces, and how our spaces shape us.</p>
UW 1020	Writing for Social Change: Writing with DC Community Organizations	<p>When people write in the real world—as when community organizers publish brochures to motivate their neighbors to fight injustice or even when college professors argue for a way to classify knowledge—they must consider their rhetorical situation carefully. In addition to conveying information, they must convince people that what they say matters, that what they are proposing has merit, that what they are asking is reasonable and possible. They must convey a sense of urgency and a sense of agency. How do people make their words do all this? First, they learn to analyze how the context in which they are speaking affects their persuasiveness. Second, they develop a repertoire of strategies for responding—ways to enhance their credibility among different kinds of audiences, ways to heighten or diffuse audience concerns, ways to signal that they share their audience's values. They develop this repertoire by studying, with a writer's eye, how other people in the community speak, act, and write. That's what we'll do in this course.</p>
Elliott School of International Affairs		
Course Number	Course Name	Course Description
IAFF 3183	Migration, Gender & International Development	<p>This seminar explores controversies around gender, migration, and development. It considers the role culture/society plays in shaping migration movements and remittance flows with particular attention to how migration differentially affects migrants' status and welfare, depending on their gender.</p>

IAFF 3183	Post Disaster Development in Haiti	<p>The course examines Haiti, its earthquake of January 12, 2010 and the aftermath as a means of addressing key questions in that sequence and the quest to build back better. The class view of Haiti will be informed by its history, political economy, pre-quake development challenges, and what has happened in the two-plus years since the earthquake. The class will begin by getting to know Haiti in its historical, developmental, and pre-disaster setting. Critical to knowing Haiti is to understand its political economy. The class will then turn its attention to the earthquake of January 2010 and what happened in its immediate aftermath. The third part of the course delves into challenges that confront Haiti in the quest to build it back better. The course concludes with comparative case studies and a glimpse into the future, particularly through the lens of prevention, urbanization, and climate change.</p>
IAFF 3186	Development Issues in SE Asia	<p>In recent decades, millions of people in Southeast Asia have experienced improved health, greatly expanded opportunities for education, and a rising standard of living. However, these benefits have not been evenly spread across countries, and even in the more prosperous countries, problems have emerged such as growing inequality, economic insecurity, and environmental destruction. In this course, we will explore how various governments, civil society organizations, and international development organizations have understood and promoted development in the region and how individuals and communities have responded to new opportunities and challenges. We will begin with an overview of Southeast Asia and the ways in which various theories of development have been articulated in the region. We will then investigate specific topics, using case studies from various countries.</p>

IAFF 3187	Venezuela and Political Economy of Oil	<p>In 2006, Venezuela was the third largest source of oil for the United States and the sixth largest net oil exporter in the world. Although touted as a model of democratization until the 1980s, Venezuela has been crippled by poverty, social inequality, and corruption. This situation formed the basis for the 1998 election of Hugo Chávez on the promise of nationalization of strategic sectors, fighting corruption, and a rupture with the long-ruling political elite. A major pillar of the Chávez administration has been to "sow the petroleum" — to use the country's vast oil resources to improve the lives of all Venezuelans, particularly the poor majority. But to what extent is oil a "resource curse" — the notion that an abundance of a natural resource is detrimental for development? We will compare the Venezuelan experience to those of other oil exporting countries, like Mexico, Saudi Arabia and Nigeria. We will also discuss Cuba's influence on Venezuela, President Chávez's reach in Latin America, U.S.-Venezuela relations, and how future environmental challenges are likely to affect the world's oil economic structure.</p>
IAFF 6121	Cornerstone Seminar in International Development	<p>Introduction to the concepts and methods of international development. Open only to M.A. candidates in international development studies.</p>
IAFF 6138	Gender and Development	<p>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.</p>
IAFF 6138	Rural Development, Human Rights, and Biodiversity	<p>This course will critically analyze the contentious intersection of rural development and environmental conservation through a multi-disciplinary focus on community conservation, drawing on the strengths of anthropology, geography, political science, and wildlife ecology. Starting with a brief history of environmental conservation and its origins in the West, we will move on to modern dilemmas facing conservation and development practitioners as they engage in on the ground work in developing countries. Non-governmental, intergovernmental, and government actors all play roles differing roles in community conservation. This course will look at how these actors get involved in community conservation and also feature guest speakers from the aforementioned fields.</p>

IAFF 6138	Gender, Tourism and Development	This class examines tourism's effects on gender roles and relations within communities and across nations. Even where tourism has been encouraged as a part of economic development and empowerment efforts, it can lead to other changes to the people and communities valued as "attractions," and to those who are tourists. With particular focus on gender within tourism activities, students in this course will critically examine and consider methods to evaluate various types of tourism, recommend improvements, and propose new forms.
IAFF 6138	Indigenous People & Development	The course examines the definitions of indigenous peoples and development and explores the development of policies undertaken by the international community towards indigenous peoples and the growth of transnational indigenous political organizations. Through the examination of several case studies, it provides a critical assessment of how indigenous peoples and international development organizations have interacted in recent history.
IAFF 6138	Poverty and Bottom-Up Development	This seminar examines poverty alleviation from a 'pro-poor,' bottom-up perspective. Special attention is given to approaches to social and economic development that address root causes of persistent poverty, get resources to the poor, and listen to the 'voices of the voiceless.'

Graduate School of Education and Human Development

Course Number	Course Name	Course Description
HOL8704	Leadership Theory, Research, and Practice	Examines social justice concerns for leaders in education, including topics such as gender and culture.

Milken Institute School of Public Health

Course Number	Course Name	Course Description
HLWL 1101	Science of Integrated Medicine	Special topic course that considers a more holistic view of health and the reduction of health disparity.
HLWL 1108	Weight and Society	Background and concepts of body dissatisfaction, disordered eating, food preoccupation, and exercise obsession.
HLWL 1110	Issues in Alternative Medicine	Various modalities of alternative/complementary/integrative therapy. Critical analysis and evaluation of the many dimensions of these approaches.
HLWL 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.

HLWL 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.
HLWL 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.
HLWL 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.
PubH 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.
PubH 2117	Service Learning in Public Health	Experiential learning with social service organizations in the DC area.
PubH 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.
PubH 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.
PubH 3151	Current Issues in Bioethics	Investigate general and specific ethical questions & ethical decision-making from a personal & organizational perspective, including topics such as the right to health care, research with human subjects, reproductive issues, genetics, professional & student roles and responsibilities, & end-of- life issues.
PubH 6099	Pesticides and Cancer	Considers elements of environmental health, sustainable agricultural practices, and environmental degradation.
PubH 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.
PubH 6131	Applied Data Analysis in Water	Apply biostatistical concepts & methods to analysis of environmental and occupational health (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.
PUBH 6199	Communicating Public Health Science	Considers the dissemination and accessibility of health information to the general public.

PUBH 6277	Public Health Genomics	Learn about molecular technology and how it is impacting public health practice & discourse in the post genomic era. Explore ways in which genomics is being used to solve or help alleviate PH problems through case-focused discussions.
PubH 6362	Civil Rights Issues/Health Care	Examines the intersection of health care and civil rights law in the United States: the history and legacy of health care discrimination in the U.S.; the various forms of health care discrimination; legislative and regulatory interventions to combat discrimination and create/enforce/restore health care civil rights; and the unique place that abortion rights holds in U.S. law and society.
PubH 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.
PubH 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.
PubH 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.
PUBH 6535	Promotion of Mental Health	Increases understanding about issues in mental health promotion. The emphasis is on mental health as a public health issue and linkages between individual mental health and the environment.
PubH 6551	Maternal & Child Health II	Culminating course for MCH program. Skills based course focusing on survey research for MCH populations. Practical aspects of study and survey design, data collection, dataset creation, data management, rudimentary statistical analysis, and research publication strategies. Course will focus on MCH specific research questions and surveys specifically for women, infants, children, and adolescents.
PubH 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.
PubH 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.

PUBH 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.
PubH 8411	Advanced Topics: Principles of Environmental Health Risk Science	Environmental health (EH) risk analysis paradigms and the sciences that contribute to recognizing, characterizing, and responding to EH risks. The strengths and weaknesses of the fundamental principles, methods, and products of these sciences will be explored through discussion of case studies and current issues. A range of EH problems will be used to illustrate scientific conflicts and variations in practical applications.
PubH 8412	Advanced Topics: Environmental and Occupational Health Research and Practice	Discussion of case studies emphasizing study design, methods, measurements, ethical issues, and procedures. Focus on interdisciplinary research, practice, & policy strategies appropriate for workplace and community settings.
School of Business		
Course Number	Course Name	Course Description
BADM 3102	Business and Government Relations	Economic and legal environment of business enterprise; social and political influences; contemporary problems and issues.
BADM 3102W	Business and Government Relations	Economic and legal environment of business enterprise; social and political influences; contemporary problems and issues.
IBUS 4900	International Perspectives on Green Business	The class is taught as "Service-Learning," a pedagogy that combines meaningful service in the community with the learning outcomes of an academic course. Throughout the spring semester, the class will partner with four community organizations to produce greening plans, educational tools and resources (including greening workshops for both adults and school-age children), develop training materials for coffee growers in Honduras, and a marketing plan to introduce sustainably produced goods to the Washington, D.C. marketplace.
IBUS 4900	Industry, Economy, Society	This course take a multidisciplinary approach (primarily political economy and management) to oil and its effects on business, nation-states and the world economy. The first half of the course adopts a top-down viewpoint, examining the global oil environment. The second half is more bottomup, using cases to grapple with industry issues.

MGT 4900	Employment Conflict and Negotiation	Clearly, business and organizational activity impact the physical environment. However, management practices within organizations also profoundly impact the human and social environment. Organizational policies and practices directly impact employee well-being in a number of ways (e.g. stress, job and life satisfaction, physical and mental health). This course examines the employment relationship and asks the question: Is it possible to manage sustainable businesses both for people and profits?
SMPP 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.
SMPP 6241	Global Corporate Responsibility	Analyze why, how and under what conditions global businesses are innovating to address corporate responsibility expectations. Focus on co-creation of value and innovation to create new markets. Examines global impact of corporate responsibility demands on businesses, civil society and public policy.
SMPP 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.
TSTD 3001	Introduction to Tourism and Hospitality Management	Historical overview and survey of the tourism and hospitality industry, with emphasis on the travel market, delivery of hospitality services, professional roles, and emerging trends.
TSTD 3301	Hospitality Industry Management	An overview of the basic principles and practices involved in the management, operation, marketing, and financing of hotels, restaurants, and other hospitality goods and services.
TSTD 6250	Destination Management	Organization and management concepts, theory, and issues, stressing application of theory through analysis of case examples drawn from the tourism and hospitality industry.
TSTD 6290	Relationship Management in Hospitality	Relationship of tourism and sustainable development; specific emphasis on cultural, environmental, and economic impacts and trends.
School of Engineering and Applied Science		
Course Number	Course Name	Course Description
CE 4410	Introduction to Geotechnical Engineering	Soils and rock formation, soil composition, permeability, seepage and flow netanalysis, stresses in soil medium, consolidation and settlement, shear strength of soil, analysis of lateral earth pressures, soil compaction.
CE 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.

CE 4450	Introduction to Geo-Environmental 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.
CE 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.
CE 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.
CE 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.
CE 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.
CE 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.
CE 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.
CE 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.
CE 6401	Fundamentals of Soils Behavior	Soil mineralogy, clay-water-electrolyte systems, soil composition, fabric, structure, volume change behavior, permeability, coupled phenomena, in-situ evaluation of soil behavior.
CE 6403	Geotechnical Engineering	Principles of soil mechanics applied to the analysis and design of mat foundations, pile foundations, retaining structures including sheeting and bracing systems, and waterfront structures. Foundations on difficult soils and reinforced earth structures.
CE 6404	Geotechnical Earthquake Engineering	Ground motion, wave propagation, foundation isolation, site response analysis, seismic stability of retaining structures, soil structure interaction.

CSCI 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.
CSCI 6365	Advanced Machine Learning	Theory and algorithms for machine learning research. In-depth focus on advanced machine learning topics such as clustering, learning from data streams, and Climate Informatics.
ECE 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.
ECE 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.
EMSE 3855W	Critical Infrastructure Systems	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 infrastructure sustainability metrics.
EMSE 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.
EMSE 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.
EMSE 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.

EMSE 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.
EMSE 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.
MAE 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.
MAE 6291	Special Topics in Mechanical Engineering	Selected subjects of current interest. Arranged by consultation between department faculty and students. Typical topics include tribology, power systems design, solar heating systems, HVAC, and plasticity theory.
School of Law		
Courses	Course Number	Course Description
LAW 6424	Animal Law	The Animal Law focus area at GW Law provides an exceptionally broad range of educational and practical opportunities for law students while also providing pro bono services and support to the District of Columbia government, humane organizations, and community groups working to strengthen the protection of animals. GW Law offers instruction both in existing law (including the law affecting companion animals; animals used for food, research, and entertainment; and wild animals at the state, federal, and international levels) and in the promotion of animal protection and welfare through legal reform.
LAW 6468	Graduate Environmental Placement	The student works on a project in the environmental law field under the supervision of both the faculty director of the program and a lawyer practicing environmental law. The project may involve working with a government agency, a congressional committee, a private practitioner, or a nonprofit public-interest environmental organization. Admission to the course is limited to LL.M. students with permission of the environmental law program director. Students may earn no more than a total of 4 credit hours for this course. This course is graded on a CR/NC basis. Five hours of work per week are required for each credit.

LAW 6522	International Business Law	U.S. law and practice relating to characteristic forms of international transactions, including the transnational sale of goods (the law governing the documentary sale, various forms of letters of credit, commercial terms and insurance); the export of technology through franchising, distributorship, and licensing contracts; and the export of capital through the establishment, operation, and withdrawal of foreign direct investment. The impact of relevant international organizations and/or emerging substantive international commercial law (e.g., the United Nations Convention on Contracts for the International Sale of Goods). Specialized problems in the negotiation and structure of international transactions.
LAW 6526	International Trade Law	Study of domestic and international laws and institutions governing foreign trade. Legal aspects of U.S. participation in the World Trade Organization, NAFTA, and other international forums; laws regulating customs and tariffs, most-favored nation treatment, subsidies, dumping, unfair trade practices, and disruptive imports under the escape clause. Specialized problems in regulating exports under the Export Administration Act, boycotts, corrupt practices, and restrictive business practices may be covered.
LAW 6527	Advanced International Trade Law	In-depth study of the World Trade Organization rules and its dispute settlement system. Each year the course examines some of the most recent developments in trade law, with a close reading of recent WTO adjudicatory decisions on issues such as subsidies, regulation of goods, regulation of services, sanitary restrictions, product standards, investment measures, and intellectual property. Issues of U.S. trade law and the relationship of international trade law to other fields of international law may also be addressed.
LAW 6545	International Project Finance Law	The use of contracts to shift and mitigate risks inherent in the acquisition, construction, and development of capital-intensive infrastructure projects (e.g., power generation, oil and gas production and distribution, industrial processes, telecommunications networks). Structural and risk allocation issues. Project finance in an international context with a focus on emerging markets.

College of Professional Studies

Course Number	Course Name	Course Description
PSLD 6201	Introduction to Design	Develop an understanding of design tools available to the landscape designer through analysis of existing landscapes, exploring design through media other than the landscape, and a final design project. Group projects, in-class reviews, and an introduction to study models, research techniques, and writing begin to create a vocabulary with which students can both describe and critique their designs and the work of others.

PSLD 6202	Site Analysis	Learn to inventory and record existing site conditions including slope, soil, microclimate, and context. Studio work includes base plans, sections, and site program. Two Saturday or Sunday field exercises are required for this course.
PSLD 6203	Site Engineering	Learn the principles and techniques of basic site engineering, including grading, drainage, earthwork, and the design of steps, ramps, walls and terraces.
PSLD 6204	Construction Methods and Materials	Develop an understanding of commonly used landscape construction materials, including stone, concrete, masonry and wood. Learn to incorporate design elements such as decks, patios, fences and walkways into the landscape.
PSLD 6212	History of Landscape Design	Slide-illustrated lectures present the major traditions in landscape design history. Readings, in-class exercises, and out-of-class projects may be required.
PSLD 6213	Contemporary Themes in Landscape Design Seminar	Faculty-moderated active discussions on contemporary movements in landscape architecture. Readings, in-class exercises, and out-of-class projects may be required.
PSLD 6231	Site Design Studio	Through lectures, site visits, and design projects, this studio design course focuses on analyzing the requirements of the program and the site to develop designs that respond both to client needs and environmental context. Continued development of graphic techniques. Moving through a series of projects, this course examines different issues in context, program and client requirements.
PSLD 6236	Planting Design Studio	This studio course focuses on the use of plants as an important design element. Topics include plants in contemporary design, plant characteristics, cultural requirements, environmental factors, plant selection, the process of planting design, planting specifications, planting details, planting cost estimates, and continued development of graphic skills.
PLSD 6221	Landscape Plants for Fall	Identification characteristics, design applications and aesthetic, functional and cultural aspects of approximately 60 trees, shrubs, vines and flowering plants for each of the periods specified. Lectures and field study.
PSLD 6223	Landscape Plants for Spring	Identification characteristics, design applications and aesthetic, functional and cultural aspects of approximately 60 trees, shrubs, vines and flowering plants for each of the periods specified. Lectures and field study.
PSLD 6225	Landscape Plants for Summer	Identification characteristics, design applications and aesthetic, functional and cultural aspects of approximately 60 trees, shrubs, vines and flowering plants for each of the periods specified. Lectures and field study.

PSLD 6240	Comprehensive Project	Under the direction of a practicing professional, you will prepare a full set of design and working drawings for a selected site. Completed projects are presented to a jury of professionals.
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