

Sustainability-Focused Courses

GES 488 Topics in Environmental Sciences: Seminar dealing with topics in environmental sciences as related to environmental and/or sustainability issues in an interdisciplinary framework.

ATY 450 Environmental Anthropology: This course examines various theoretical approaches to human adaptation and the environment. Various ecological perspectives are used to examine the larger questions of social justice, culture preservation, and resource access.

ATY 526 Food and Culture in a Global Context: Examines the linkages among food producers, marketing strategies, and natural resource use in different cultures, and explores the influence of agriculture on society and the environment.

BIO 301 Principles of Ecology: Introduction to fundamentals of ecology. Principles relating to populations, communities and ecosystems. Particular emphasis placed on the many dimensions of interdependence within ecosystems.

BIO 315 Ecology and Evolution Laboratory: This course is designed to help students understand, via hands-on activities, how species and populations evolve and how species and individuals interact with one another and with their environment.

BIO 361 Biology and Conservation of Sea Turtles: Students spend 2 weeks in July/August in Tortuguero, Costa Rica assisting with tagging and collecting data on nesting turtles. Seminar and N.C. field trip in spring.

BIO 420 Ecosystem Ecology and Biogeochemistry: Introduction to ecosystem function, structure, and dynamics; basic ecosystem theories; discussions of key processes governing energy flow and nutrient cycling; comparison of ecosystems; selected original literature.

BIO 423 Landscape Ecology Laboratory: Field labs to observe different landscape structures and conduct course projects for comprehending principles of landscape ecology. Students will use computer labs for GIS basics, landscape analyses.

BIO 423 Landscape Ecology: Introduction to patch-corridor-matrix structure of landscapes and their impact on ecological processes. Discussion of landscape indices, spatial heterogeneity, current issues, and general approaches in landscape ecology.

BIO 426 Conservation Biology: Introduction to habitat and species conservation; topics include genetic diversity, demographic patterns of rare species, habitat fragmentation, design and management of nature reserves, ecological restoration.

BIO 427 Terrestrial Plant Ecology: Application of principles of ecology to plants and plant communities. Experimental methods stressed in laboratory work. Two required weekend field trips.

BIO 428 Microbial Ecology: Emphasis on current areas of active research with reference to applied problems.

BIO 429 Aquatic Ecology: The study of the geology, physics, chemistry, and ecology of lakes, including reservoirs and streams with comparisons to the ocean.

BIO 431 The Biosphere: A study of environmental issues in biology, specifically ecosystems, population dynamics, biodiversity and extinction

BIO 438 Animal Behavior: Application of theory of evolution to the explanation of animal behavior. Surveys a variety of species, addressing several behavioral categories as well as issues in sociobiology and human evolution.

BIO 445 Disease Ecology: Understanding and managing emerging infectious diseases, primarily zoonotic, using an ecologically-based approach. Students learn theory and skills in the epidemiology and ecology of infectious diseases.

BIO 456 Global Change: This class will cover (1) the causes of anthropogenic global change, (2) the consequences for biological and ecological processes, and (3) ecology and biotechnology-based solutions for mitigating and adapting to this new world. Students will read and discuss the primary literature on global change as well as explore policy makers' perspectives. Additionally, students will practice how to communicate science effectively through in-class discussions and debates, written assignments, and multiple in-class oral presentations.

BIO 460 Symbiosis: Symbiotic interactions of living organisms from an evolutionary perspective. Metabolic, genetic, behavioral, and ecological adaptations which allow symbioses to be formed and maintained will be discussed.

BIO 488 Essentials of Toxicology: This course is designed to introduce undergraduate students to the fundamentals of toxicology and serve as the key introductory course for students who require a background in toxicology.

BIO 601 Advanced Topics in Animal Ecology: Directed readings in the literature of physiological ecology, growth and regulation of populations, community structure, energy flow, mineral cycling, and other areas of current research interest

BIO 605 Seminar in Ecology: Broad view of ecological literature and in-depth studies of selected aspects of population and community ecology.

BIO 607 Seminar in Environmental Health Science: Development of critical-thinking and writing skills through discussions and critiques of primary literature in environmental health science and through writing assessments.

BIO 620 Ecosystem Ecology and Biogeochemistry: Introduction to ecosystem function, structure, and dynamics; basic ecosystem theories; discussions of key processes governing energy flow and nutrient cycling; comparison of ecosystems; selected original literature.

BIO 622 Landscape Ecology: Introduction to patch-corridor-matrix structure of landscapes and their impact on ecological processes. Discussion of landscape indices, spatial heterogeneity, current issues, and general approaches in landscape ecology.

BIO 623 Landscape Ecology Laboratory: Field labs to observe different landscape structures and conduct course projects for comprehending principles of landscape ecology. Students will use computer labs for GIS basics, landscape analyses.

BIO 626 Conservation Biology: Introduction to habitat and species conservation; topics include genetic diversity, demographic patterns of rare species, habitat fragmentation, design and management of nature reserves, ecological restoration.

BIO 627 Terrestrial Plant Ecology: Application of principles of ecology to plants and plant communities. Experimental methods stressed in laboratory work. Two required weekend field trips.

BIO 628 Microbial Ecology: Emphasis on current areas of active research with reference to applied problems.

BIO 629 Aquatic Ecology: The study of the geology, physics, chemistry, and ecology of lakes, including reservoirs and streams with comparisons to the ocean.

BIO 630 Aquatic Ecology Laboratory: Practical study of water chemistry methods, lake and stream morphometry, identification of freshwater zooplankton, benthic invertebrates and fish, and field trips to area reservoirs and streams.

BIO 641 Stream Ecology: Study of ecology and management of flowing water ecosystems. Topics such as community and ecosystem processes, major paradigms, management of point versus non-point pollutants, and restoration addressed.

BIO 656 Global Change: This class will cover (1) the causes of anthropogenic global change, (2) the consequences for biological and ecological processes, and (3) ecology and biotechnology-based solutions for mitigating and adapting to this new world. Students will read and discuss the primary literature on global change as well as explore policy makers' perspectives. Additionally, students will practice how to communicate science effectively through in-class discussions and debates, written assignments, and multiple in-class oral presentations.

BIO 660 Symbiosis: Symbiotic interactions of living organisms from an evolutionary perspective. Metabolic, genetic, behavioral, and ecological adaptations which allow symbioses to be formed and maintained will be discussed.

BIO 707 Seminar in Environmental Health Science: Development of critical-thinking and writing skills through discussions and critiques of primary literature in environmental health science and through writing assignments.

BIO 731 Environmental Health Science I: Ecosystems to Individuals: Causes of environmental problems that society faces and the effects on ecosystem and community function and species survival. Implications for environmental and human health are explored.

BIO 732 Environmental Health Science II: Individuals to Molecules: Introduction to fundamentals of toxicology with a focus on toxicological consequences of environmental perturbations on physiological and cellular processes, genome structure, and gene function.

BIO 733 Workshops in Environmental Health Science: Individual six-week workshops focusing on analytical tools and experimental approaches used in freshwater/riparian ecosystem analysis, environmental genomics, environmental forensics, and cellular/physiological research.

BIO 734 Current Research in Environmental Health Science: Weekly discussion of research journal articles in the area of environmental health science. Students will present and discuss research journal articles.

BUS 130/ENT 130 Entrepreneurship in a Sustainable Global Environment: Global forces will restructure the world economy for the foreseeable future. Entrepreneurship, sustainability, and innovation will drive companies and individuals and produce major changes within that environment

BUS 300 Ideas to Sustainable Opportunities: Feasibility Analysis: Provides the knowledge and skills to develop a sustainable feasibility plan for a new business venture that will be the basis for developing a business plan.

BUS 340/ENT 340 Social Entrepreneurship: Introduction to social entrepreneurship including identification of social problems and how they are solved through innovation, community impact, sustainability, ethical, scalable, economic value creation, and risk-taking efforts.

BUS 440/ ENT 440/ PCS 440/ WGS 440: Social Entrepreneurship: Justice and a Green Environment: Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.

BUS 640/ENT 640/ WGS 640 Experiences in Sustainable Entrepreneurship: Interdisciplinary course in sustainable entrepreneurship. Exploration of models for designing and implementing entrepreneurial projects which respond to social, economic, environmental, and justice issues. Introduction to direct action and evaluation.

CHE 252 Chemistry and the Human Environment: Study of chemical problems central to current technological, biomedical, and environmental issues. Topics include energy alternatives, food chemicals, environmental chemistry, molecular basis of drug action, and consumer products.

CST 420 Environmental Communication: Explores environmental communication including current issues, theoretical frameworks, ethical frameworks, and the symbolic relationship of humans to nature. Emphasizes research, analysis, critical self-reflection, and practices.

ECO 380 Environmental and Natural Resource Economics: Examination of environmental problems in market economies. Topics include the economic theory of pollution and its control, common-property resources, renewable and other resources, endangered species, population growth, and international problems.

ECO 734 Public Policies Toward innovation and Sustainability: Examines public-sector innovation and sustainability policies from a domestic and global perspective.

ENG 380 Literature and the Environment: Exploration of some important post-1800 literary texts about “nature,” of ecocritical theories, and of affiliated social movements, with particular attention to place-based differences.

GEO 402/ENT410 Sustainable Urban Planning in an Entrepreneurial Environment: Fundamental concepts and techniques of urban planning as it relates to enhancing overall quality of life with a primary focus on land use patterns, the environment, business, and entrepreneurship.

GES 103 Introduction to Earth Science: Survey of basic concepts and processes integrating the nature of the earth’s three primary physical systems: the solid earth and continents; the ocean basins and the oceans; and the atmosphere’s weather.

GES 106 Our Dynamic Planet: The earth’s atmosphere, hydrological, and tectonic systems. Includes applications to natural resources management and environmental planning

GES 162 Introduction to Sustainability: Survey of sustainability from four perspectives; environment, economy, social equity, and aesthetics. Local, global, ethical, and experiential dimensions help prepare students to apply sustainability in a variety of contexts.

GES 163 North Carolina Environments: This interdisciplinary course provides a mountains-to-sea approach to places and people in North Carolina. Students address problem solving with UNCG as a living laboratory for environmental and sustainability issues.

GES 164 Introduction to Environment: Interdisciplinary survey of environmental issues. Emphasis on sciences (biology, chemistry, ecology, geography). Also includes perspectives from social sciences (anthropology, economics, politics, sociology) and humanities (arts, history, literature, philosophy, religion).

GES 205 Environmental Change: Its Nature and Impact: Environmental changes related to human use of land, water, soils, minerals, and natural amenities. Planning for sustained use or preservation of land-based natural resources.

GES 260 Sustainable Campus Operations: Study of facilities operations for universities and similar organizations, emphasizing sustainable infrastructure and institutional change. Focus on professional development, applied knowledge, and experiential learning.

GES 270 Environment and Experience: Consideration of an environment or place emphasizing sustainability and experiential learning. Involves readings/lectures on ecological, economic, social, and aesthetic aspects; field work and/or travel; and reflective, synthetic, and/or research writing.

GES 302 Urban Geography: Land Use: Internal structure of cities, including the role of transportation systems, socio-economic development, and the physical environment. Emphasis on differences within cities.

GES 303 World Population Problems: Major world population problems, trends, and significant policy and action alternatives for the future. Impact of various geographical factors on problems and trends.

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GES 304 : Sustainable Transport and Mobility: Transportation systems as they affect urban and economic growth patterns, accessibility and mobility, and the environment. Emphasis will be given to the future of sustainable accessibility and mobility.

GES 305 Environmental Hazards Assessment: Nature and geographical distribution of short-lived environmental hazards including earthquakes, hurricanes, floods, volcanic eruptions, and landslides. Factors contributing to increased hazard potential. Alternative human responses to short-lived hazards.

GES 312 Geomorphology of North America: A survey of the various landscape regions of the North America. Emphasis on the relationships between the geologic, erosional, and climatic processes occurring in each region.

GES 313 Natural Resource Regions of North America: Regional natural resource use and associated human interaction with the natural environment. Instruction takes place during an extended field trip across portions of North America.

GES 314 Physical Geography: Landscape Processes: Examination of the processes responsible for the development of the earth's varied terrain characteristics. Analysis of environmental problems involving human impact on landscape and river systems.

GES 319 : Weather and Climate: Introduction to the nature, origin, processes, and dynamics of the atmosphere. Consideration also of human modification of the atmosphere and of climatic change.

GES 319L Climatology Laboratory: Laboratory work to accompany GES 319.

GES 320/STH320 Tourism Planning and Development: Geographic distribution of tourist development. Emphasis on the spatial dimension of origin-destination flows, economic geography of the travel industry, socio-economic and environmental impacts. Emphasis on tourism planning issues.

GES 322 Research Methods in Geography: Use of the scientific method, data collection, spatial analysis, and technical writing. Development of fundamental research and quantitative skills in geography.

GES 328 The Water Planet: The course focuses on interactions between water and society, including the use of water as a natural resource and the impacts of humans on water quantity and quality.

GES 330 Elements of Hydrology: Introduction to the origin, properties, occurrence, circulation of the waters of the earth, including the application of hydrologic techniques for the evaluation of regional water budgets and problems relating to the conservation of water resources.

GES 331/STH331 Sustainable Tourism and Transportation: Explores transportation networks utilized by the global tourism sector; their social, economic, and environmental dimensions, associated trends, associated negative impacts and resource usage and opportunities for planning sustainable transportation networks.

GES 358 Geographic Information Systems: Provides basic concepts and methods for capturing, storing, querying, analyzing, and displaying geospatial data using Geographic Information Systems (GIS).

GES 359 Remote Sensing of Environment: Acquisition, analysis, and interpretation of digital and photographic imagery. Emphasis on use of satellite and aircraft imagery for classification and monitoring of the earth's physical and cultural landscape.

GES 366 Internship in Environment & Sustainability: 150 hours of supervised work in a private, nonprofit, or public environmental agency; seminars or meetings to discuss readings and internship experiences; research paper or written field project required.

GES 367 Research in Environment & Sustainability: Considers various current environmental and sustainability issues in depth from interdisciplinary perspectives. Students conduct research, prepare a written report, and disseminate results.

GES 368 Individual Study in Environment & Sustainability: Reading or research. Available to qualified students upon recommendation of supervising instructor.

GES 405 Sustainable Regional Planning: Sustainable regional development and planning processes focused on regional planning techniques and law.

GES 411 Advanced Weather and Climate—Synoptic Climatology: Exploration of atmospheric dynamics and general circulation patterns throughout the world. Emphasis on cyclogenesis, surface-upper atmosphere links, tropospheric waves, vorticity, and forecasting.

GES 415 National Parks and Protected Areas: This course is devoted to the changing geography of the National Park System and related protected areas in the USA, with an emphasis on their environmental, historical and political significance.

GES 418 Biogeography: Study of the geographic distribution of organisms and the factors/processes accountable. Emphasis on the increasingly important role humans play in influencing biogeographic processes.

GES 419 Advanced Weather and Climate-Synoptic Climatology: Exploration of atmospheric dynamics and general circulation patterns throughout the world. Emphasis on cyclogenesis, surface-upper atmosphere links, tropospheric waves, vorticity, and forecasting.

GES 421 Geographic Information Science: Principles and use of geographic information; emphases are on data acquisition and techniques of spatial analysis and display. Requirements include a substantial applied research project.

GES 430/ENT 430 Researching Opportunities in Entrepreneurship and Economic Development: Students will learn how to conduct research necessary to make informed decisions for an entrepreneurial venture and measure and assess economic development opportunities. No business research experience necessary.

<p>GES 432 Geography of Livable Cities: Advanced study on the processes of urban population and economic growth from the perspective of urban livability. Emphasis on accessing and interpreting data from public or private sources.</p>
<p>GES 433 Regional Economic Development: Theories of location of economic activity; techniques to assess impact of types of economic activity; policy and institutional issues related to local, state, and global economic development.</p>
<p>GES 450 Applied Physical Geography: Applications in physical geography. Topics include field experience in hydrology, dendrochronology, geomorphology, climatology, and mapping. Notes: May be repeated once when topic changes.</p>
<p>GES 462 Sustainability: Seminar addressing sustainability in an interdisciplinary framework connecting environmental sciences, equity & society, development & economics, and ethics & aesthetics.</p>
<p>GES 464 Environment: Advanced study of coupled human-environmental problems and solutions. Focus on classic cases and current topics in environmental studies.</p>
<p>GES 482 Topics in Ethics and Aesthetics: Seminar dealing with topics in ethics and/or aesthetics as related to environmental and/or sustainability issues in an interdisciplinary framework.</p>
<p>GES 484 Topics in Development and Economics: Seminar dealing with topics in development and/or economics as related to environmental and/or sustainability issues in an interdisciplinary framework.</p>
<p>GES 486 Topics in Equity and Society: Seminar dealing with topics in equity and/or society as related to environmental and/or sustainability issues in an interdisciplinary framework.</p>
<p>GES 495 Internship in Geography: Practical experience in a professional setting related to the student's main topic of interest. Includes a research paper linking the topic to the experience.</p>
<p>GES 602/GES700/ENT10 Sustainable Urban Planning in an Entrepreneurial Environment: Fundamental concepts and techniques of urban planning as it relates to enhancing overall quality of life with a primary focus on land use patterns, the environment, business, and entrepreneurship.</p>
<p>GES 603 Understanding Geographic Information Systems: Study and application of geographic information systems for professional problem-solving, spatial analysis, and mapping.</p>
<p>GES 605 Sustainable Regional Planning: Sustainable regional development and planning processes focused on regional planning techniques and law.</p>
<p>GES 606 Environmental Planning: Examination and analysis of environmental concepts and their relationship to various planning and management scenarios, including environmental issues, strategies, and plans.</p>
<p>GES 607 Earth Science for Educators: Study of the processes that shape Earth's lithospheric, hydrospheric, and atmospheric realms. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.</p>
<p>GES 608 Weather and Climate for Educators: Examination of Earth's physical atmospheric processes as they apply to weather and climate systems. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.</p>

GES 609 Hydrology for Educators: Examination of Earth's water sphere, including Earth-Atmosphere interactions, and its importance as a resource. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 610 Biogeography: Study of the geographic distribution of organisms and the factors/processes accountable. Emphasis on the increasingly important role humans play in influencing biogeographic processes.

GES 610 Physical Geology for Educators: Study of the materials that comprise Earth, and the processes shaping its near-surface environment. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 611 Advanced Weather and Climate—Synoptic Climatology: Exploration of atmospheric dynamics and general circulation patterns throughout the world. Emphasis on cyclogenesis, surface-upper atmosphere links, tropospheric waves, vorticity, and forecasting.

GES 611/711 Natural Hazards and Society for Educators: Study of the Earth's near-surface natural hazards, with discussion of anthropogenic influences and societal consequences. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 612 Natural Resource Geography: Application of geographical theory to natural resource use and distribution. Emphasis on resource use and constraints to development.

GES 615/715 National Parks and Protected Areas: This course is devoted to the changing geography of the National Park System and related protected areas in the USA, with an emphasis on their environmental, historical and political significance.

GES 622 Geography of Livable Cities: Advanced study on the processes of urban population and economic growth from the perspective of urban livability. Emphasis on accessing and interpreting data from public or private sources.

GES 622 GIS Applications in Urban Planning: Theory and practice integrating Geographic Information Systems with land use planning practice. Emphasis on advanced analysis and display of spatial data and information in support of land use planning decision-making.

GES 630/ENT 630/LIS 530/MKT 530 Researching Opportunities in Entrepreneurship and Economic Development: Students will learn how to conduct research necessary to make informed decisions for an entrepreneurial venture and measure and assess economic development opportunities. No business research experience necessary.

GES 631 Transportation Planning: Theory and practice of transportation planning with an emphasis on urban transportation systems.

GES 633 Advanced Topics in European Geography: In-depth analysis of select advanced topics related to Europe. Combines systematic and regional traditions within geography. Possible themes include European integration, immigration, urbanization and cities, cultural preservation, tourism, the environment. May be repeated for credit when topic varies.

GES 633 Regional Economic Development: Theories of location of economic activity; techniques to assess impact of types of economic activity; policy and institutional issues related to local, state, and global economic development.

GES 641 Earth Surface Processes and Landforms: Advanced systematic study of geomorphology with applications to human responses to natural hazards and environmental management.

GES 658 Advanced Geographic Information Systems: Advanced concepts and methods in Geographic Information Systems (GIS). Emphasis is placed on the analysis and modeling of geospatial data using raster and vector data models.

GES 659 Advanced Remote Sensing—Imaging: Remote sensing of the environment using scientific visualization and digital image processing techniques.

GES 660 Sustainable Campus Operations: Study of facilities operations for universities and similar organizations, emphasizing sustainable infrastructure and institutional change. Focus on professional development, applied knowledge, and experiential learning.

GES 662 Sustainability: Seminar addressing sustainability in an interdisciplinary framework connecting environmental sciences, equity and society, development and economics, and ethics and aesthetics. Open to graduate students in any field of study.

GES 664 Environment : Advanced study of coupled human-environmental problems and solutions. Focus on classic cases and current topics in environmental studies.

GES 670 Applied Physical Geography: Applications in physical geography. Topics include field experience in hydrology, dendrochronology, geomorphology, climatology, and mapping.

GES 684 Topics in Development and Economics: Seminar dealing with topics in development and/or economics as related to environmental and/or sustainability issues in an interdisciplinary framework.

GES 686 Topics in Equity and Society: Seminar dealing with topics in equity and/or society as related to environmental and/or sustainability issues in an interdisciplinary framework.

GES 688 Topics in Environmental Sciences: Seminar dealing with topics in environmental sciences as related to environmental and/or sustainability issues in an interdisciplinary framework.

GES 697 Capstone in Sustainability and Environment: Advanced research report on a sustainability and environment problem that proposes interdisciplinary solutions.

GES 706 Environmental Planning: Examination and analysis of environmental concepts and their relationship to various planning and management scenarios, including environmental issues, strategies, and plans.

GES 707 Earth Science for Educators: Study of the processes that shape Earth's lithospheric, hydrospheric, and atmospheric realms. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 708 Weather and Climate for Educators: Examination of Earth's physical atmospheric processes as they apply to weather and climate systems. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 709 Hydrology for Educators: Examination of Earth's water sphere, including Earth-Atmosphere interactions, and its importance as a resource. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 710 Physical Geology for Educators: Study of the materials that comprise Earth, and the processes shaping its near-surface environment. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

GES 712 Natural Resource Geography: Application of geographical theory to natural resource use and distribution. Emphasis on resource use and constraints to development.

GES 718 Biogeography: Study of the geographic distribution of organisms and the factors/processes accountable. Emphasis on the increasingly important role humans play in influencing biogeographic processes.

GES 730 Seminar in Earth Science/Natural Resources: Directed readings and research proposal development on selected aspects of natural resource policy and management from the perspective of earth science.

GES 742 Earth Surface Processes and Landforms: Advanced systematic study of geomorphology with applications to human responses to natural hazards and environmental management.

GES 760 Sustainable Campus Operations: Study of facilities operations for universities and similar organizations, emphasizing sustainable infrastructure and institutional change. Focus on professional development, applied knowledge, and experiential learning. **Doctoral level coursework.**

GES 762 Sustainability : Seminar addressing sustainability in an interdisciplinary framework connecting environmental sciences, equity and society, development and economics, and ethics and aesthetic

GES 764 Environment: Advanced study of coupled human-environmental problems and solutions. Focus on classic cases and current topics in environmental studies.

GES 782 Topics in Ethics and Aesthetics: Seminar dealing with topics in ethics and/or aesthetics as related to environmental and/or sustainability issues in an interdisciplinary framework.

GES 784 Topics in Development and Economics: Seminar dealing with topics in development and/or economics as related to environmental and/or sustainability issues in an interdisciplinary framework.

GES 786 Topics in Equity and Society: Seminar dealing with topics in equity and/or society as related to environmental and/or sustainability issues in an interdisciplinary framework.

GES 788 Topics in Environmental Sciences: Seminar dealing with topics in environmental sciences as related to environmental and/or sustainability issues in an interdisciplinary framework.

HEA 307 Global Health: Study of disease burden and health systems in high-, middle-, and low-income countries. Emphasis on challenges and public health and entrepreneurial approaches to improvements in resource-constrained and emerging nations.

HEA 315 Epidemiology: Study of the distribution and determinants of disease occurrence with emphasis on application to health education.

HEA 316 Environmental Health: An analysis of the identification, assessment, and control of environmental health risks. Focus on the effects of specific toxicants and the prevention of their negative impact on health and well-being.

HEA 608 Environmental Health: Analysis of local, national, and international environmental issues influencing the health of individuals and communities; air and water quality, waste management, disease control, occupational settings, population, and environmental planning.

HEA 640/740 Global Health Issues: Examine global health issues with an analysis of the determinants of health status in selected world regions and analyze global prevention efforts. Study of international organizations; roles and programs.

HIS 334 United States Environmental History: Examines the interaction of humans and nature in American history from the colonial period to today.

IAR 101 Environmental Design I: Studio investigations of space design at small scale while exploring properties of basic materials. Development of conceptual thinking.

IAR 102 Environmental Design II: Studio investigations of space design at small scale while exploring properties of basic materials. Development of conceptual thinking.

IAR 124 Introduction to Sustainable Design: This course will provide an overview of sustainable design and the various systems that contribute to it, including the building arts, business, logistics, manufacturing, and energy production.

IAR 201 Basic Environmental Design III: Studio investigations of spaces as articulated by the interaction of individual and place. Emphasis placed on cognitive understanding of design process, light and color, construction systems, and ongoing study of materials.

LLC 130 Global Green: Cultures of Production and/or Consumption: This course explores global sustainability by tracing products from origin to consumer, examining related cultural practices, including those embodied in literature, film, music, and art. Topics include textiles, chocolate, tea, and ecotourism.

MBA 716 Leadership and Sustainable Business: Introduction to the values associated with ethics and sustainability relative to leadership, from idea formulation through communication within various constituencies across organizational contexts and communication media.

MUS 223 Music and Environment: Consideration of creative works and traditions relating human sound (music, noise, etc.) and the natural environment from artistic, humanistic, and scientific perspectives.

PCS 405 Environmental Justice: Interdisciplinary Response for Sustainability: Interdisciplinary exploration of models that address social, economic, environmental justice concerns and their impact on community, economic, and environmental sustainability.

PCS 406/SWK 405 Environmental Justice: Interdisciplinary Response for Sustainability: Interdisciplinary exploration of models that address social, economic, environmental justice concerns and their impact on community, economic, and environmental sustainability.

PCS 432 Conflict Transformation at the Food-Water Nexus: Contemporary issues in food and water systems are examined using the lens of conflict transformation. Through this lens, we will analyze associated social and environmental conflicts, with an emphasis on dynamics of power and justice. Students will learn about transformative interventions associated with the conflicts we cover in class.

PCS 457 Ecocultures and Sustainable Communities: Explore ecocultures as sustainable models of peacebuilding and as alternatives to the dominant approach to global development. Through a study of the four dimensions of regenerative sustainability, students will examine how ecocultures, including traditional communities and contemporary ecovillages, are designed to nurture healthy, resilient, and sustainable communities and ecosystems.

PCS 505/SWK 505 Environmental Justice: Interdisciplinary Response for Sustainability:

Interdisciplinary exploration of models that address social, economic, environmental justice concerns and their impact on community, economic, and environmental sustainability.

PCS 540 Social Entrepreneurship: Justice and a Green Environment: Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.

PCS 657 Ecocultures and Sustainable Communities: Explores ecocultures as sustainable models of peacebuilding and as alternatives to the dominant approach to global development. Through a study of the four dimensions of regenerative sustainability, students will examine how ecocultures, including traditional communities and contemporary ecovillages, are designed to nurture healthy, resilient, and sustainable communities and ecosystems.

PHI 363 Environmental Ethics: The ethics of our relationship to the environment. Traditions in environmentalism; treatment of animals, nature, plants, and species; application of environmental ethical theory to real-world environmental problems.

REL 250 Religious Traditions and Care of the Earth: Examination of the thought, ethics, and practice of major religious traditions and worldviews with regards to the care of the earth. Emphasis on non-Western, indigenous, and ecofeminist traditions.

SOC 370 Environmental Sociology: Introduction to major sociological theories, perspectives and research useful for understanding environmental issues and environmentalism. Primary focus on the U.S., with some attention to Europe and developing countries.

SOC 373 Green Criminology: Study of harms and crimes against the natural environment and the related impacts on human and non-human animals. Students will assess and analyze the causes and consequences of environmental crime.

STH 200 Introduction to Sustainable Development: Explores the social, environmental, and economic dimensions of sustainable development; introduces sustainable development concepts and challenges; prepares students for the application of these concepts in functional business topics.

STH 201 Corporate Social Responsibility and Change Management: Students explore how stakeholders define, measure, and assign value to corporate efforts in social responsibility. Skill development in managing change and innovation, stakeholder partnerships, social media, and volunteerism.

STH 232 Tourism Impacts and Alternatives: Explores positive and negative economic, environmental, and sociocultural impacts of tourism at personal, local, regional, and international levels. Students learn how to manage impacts through alternative tourism strategies.

STH 311 Sustainable Food and Beverage: Explores the evolution of food and beverage as a commodity; ethical issues of industrializing and globalizing food service systems; strategies for successfully incorporating sustainability and ecogastronomy into commercial food and beverage operations.

STH 312 Greening Hotel Facilities: Focuses on the how and why of matching facility design to operational goals. Students learn to communicate functional goals from an operator's viewpoint to design and engineering professionals.

STH 331 Sustainable Tourism and Transportation: Explores transportation networks utilized by the global tourism sector; their social, economic, and environmental dimensions, associated trends, associated negative impacts and resource usage, and opportunities for planning sustainable transportation networks.

STH 332 Sustainable Destination Planning and Management: Introduction to the management of sustainable tourism destinations. Students will be exposed to the entire destination management process including basic concepts, planning, development, management, and marketing of sustainable tourism.

TED 623 Environmental Education: Teachers will design, conduct, and evaluate environmental education activities. Course activities partially fulfill requirements for North Carolina environmental education certification.

TED 632 Science Education: Teaching Practices and Curriculum: Application of reform efforts in the sciences with attention given to eco and social justice perspectives.

WGS 374 Ecofeminism: Study of Ecofeminism as a philosophy and social movement that focuses on interconnections between feminism and environmentalism. Analysis of paradigms and inequalities that devalue and oppress both 'women' and 'nature'

Sustainability Inclusive courses

ARH 346 Art in the Global 19th Century: Study of artistic practices across geographies in the nineteenth century as interwoven global phenomenon, with particular attention to changing social structures, technological developments, and imperialist power systems.

ARH 348 Native Arts of North America: Study of Indigenous art practices across North America both past and present with attention to issues of settler colonialism, cross-cultural contact / exchange, sovereignty, and resistance.

ARH 359 Art and/as Social Justice: Traces how artists and artworks have directly and indirectly participated in social initiatives or movements for equity, inclusion, and justice. Era, mediums, and geographic scope variable.

ARH 370 African Art: Ancient Empires to Colonial Contact: Survey of the visual arts of Africa prior to and during colonialism. Divided into regional units stressing the religious and social functions of art and the dynamism of cultural change.

ARH 371 The TransAtlantic: Cross-Cultural Representations: Beginning with the colonization of the Americas, a chronological and topical analysis of art from Africa, the Americas, and Europe. Major themes: history of slavery, African diasporic religions, African tourism.

ATY 213 Introduction to Cultural Anthropology: Cultural anthropology attempts to stimulate interest in basic questions about human nature and human adaptation, including major theoretical approaches, the nature of field work, and an examination of selected topics.

ATY 253 Introduction to Biological Anthropology: Lecture covering human biology from an evolutionary perspective. Topics include evolutionary theory, human variation, nonhuman primates, the fossil record, human osteology, molecular and population genetics.

ATY 253L Introduction to Biological Anthropology Laboratory: Laboratory supporting ATY 253.

ATY 330 Cultures of North American Indians: Traditional ways of life of indigenous people of North America.

<p>ATY 362 Methods in Cultural Anthropology: This ethnographic methods course is designed to experience firsthand a variety of qualitative and quantitative methods in data collection and analysis traditionally used by cultural anthropologists.</p>
<p>ATY 465 Medical Anthropology: Explores multiple causes of disease and cultural variation in health practices. Topics include culture and political ecologies of disease, ethnomedical systems, and healers in cross-cultural perspectives.</p>
<p>ATY 520 Economic Anthropology: An analysis of the economic organization of tribal and peasant peoples with special attention given to their participation in a world economy; emphasis is on economic models of social change</p>
<p>BIO 100 Orientation to the Biology Major: Introduction to the Biology major at UNCG. What it means to be a Biology major at UNCG, in our community, and as a career.</p>
<p>BIO 105 Major Concepts of Biology: Introduction to major concepts in biology. Topic sections emphasize specific areas including conservation biology, biotechnology, and current issues. Survey sections emphasize basic aspects of biology, including genetics, physiology and ecology.</p>
<p>BIO 105L Major Concepts of Biology Laboratory: Designed to acquaint non-science majors with the process of scientific inquiry and major ideas in biology, including function of cells, the human body, mechanisms of heredity, ecology, and evolution.</p>
<p>BIO 112 Principles of Biology II: Prerequisite for 300-level courses and above. This course includes laboratory. Fundamental principles of biology including botany, zoology, evolution, and ecology.</p>
<p>BIO 112L Principles of Biology II Lab: Laboratory supporting BIO 112.</p>
<p>BIO 277 Human Physiology: Human physiology with emphasis on homeostatic mechanisms.</p>
<p>BIO 280 Fundamentals of Microbiology: General survey of microscopic life and its impact on medicine, public health, and the environment. Includes laboratory work with bacteria, emphasizing aseptic technique</p>
<p>BIO 330 Evolution: Fundamental principles of evolutionary biology, including processes and patterns of biological evolution and an overview of the historical and contemporary biodiversity resulting from evolution</p>
<p>BIO 392 Genetics: Mendelism and modern trends in genetics</p>
<p>BIO 401 Advanced Topics in Animal Ecology: Directed readings in the literature of physiological ecology, growth and regulation of populations, community structure, energy flow, mineral cycling, and other areas of current research interest</p>
<p>BIO 405 Advanced Topics in Ecological Physiology: Study of a major topic in ecological physiology of animals, including mechanisms by which physiological processes change in response to environmental alterations and the ecological significance of those changes.</p>
<p>BIO 406 Advanced Topics in Genetics: Basic mechanisms of gene action in microbes, animals, and plants</p>
<p>BIO 409 Advanced Topics in Microbiology: Critical review of current research covering a wide range of topics including infectious diseases, bacterial physiology, marine microbiology, and immunology. Focus on students' interests or needs.</p>
<p>BIO 410 Advanced Topics in Plant Ecology: Studies of special terrestrial communities or plant groups</p>
<p>BIO 411 Advanced Topics in Plant Physiology: The physiology of growth and development in vascular plants treated in terms of phytohormones, nutrition, theories of transport, and environmental factors.</p>

BIO 412 Advanced Topics in Plant Structure and Evolution: Study of current topics in plant structure, development, and evolution. A term paper is normally required.
BIO 415 Advanced Topics in Vertebrate History: Directed/independent study of classification and phylogeny of particular vertebrate groups that results in a term paper.
BIO 420 Marine Biology: An introduction to marine organisms and their habitats; special attention given to adaptations necessary for marine life, physical oceanography, and basic ecological principles; one weekend coastal field trip is required.
BIO 422 Plant Diversity: Introduction to plant, fungi, and protista kingdoms. Emphasis is on structure, reproduction, and life cycles of the organisms.
BIO 424 Plant Physiology and Biotechnology: Physiological processes involved in plant growth spanning effects from the molecular to the environmental level. Laboratories will utilize biotechnological manipulations of the model plant Arabidopsis.
BIO 430 Biological evolution: Fundamental principles of evolution biology, including mechanisms and consequences of evolutionary change, levels of selection, speciation, population genetics, and major evolutionary patterns at human and geologic time scales.
BIO 439 Animal Behavior with Laboratory: Application of theory of evolution to animal behavior. Includes laboratory and field techniques for assessing behavioral adaptations. Surveys several behavioral categories in a variety of species.
BIO 440 Genes and Signals: Investigates the regulation of gene expression in bacteria, yeast, and higher eukaryotes, and explores how such regulatory systems have evolved.
BIO 441 Entomology: A theoretical and practical overview of the insect orders, selected topics of insect behavior, ecology, and evolution, and an introduction to human-insect interactions.
BIO 441 Invertebrate Zoology: Major invertebrate groups with emphasis on their phylogenetic relationships, ecology, physiology, evolution, and structural adaptations of representative types. Weekend coastal field trip may be required.
BIO 454 Vascular Plant Systematics: Principles, methods, and the history of systematic biology are covered in the context of vascular plant classification and evolution.
BIO 455 Vertebrate Reproduction: An advanced treatment of the diversity of vertebrate reproductive biology, with emphasis on structural, regulatory, behavioral, and evolutionary aspects.
BIO 470 Vertebrate Zoology: Evolution of major vertebrate groups with emphasis on morphology, ecology, and behavior. Comparisons of vertebrates in the laboratory through dissections and field work.
BIO 476 Population Genetics and Molecular Evolution: Application of population genetic and molecular evolutionary theory to the study of natural history, natural selection, genome variation and organization, human evolution, conservation biology, and forensics.
BIO 478 Hormones in Action: Hormonal signaling in humans and other animals is examined using developmental, physiological, behavioral, cellular, and molecular perspectives, with special emphasis on the adrenal glands and the gonads.
BIO 480 Environmental Physiology: Lectures, discussions, and student presentations on the physiology of animals as it is influenced by and is adapted to environmental conditions.
BIO 481 General Microbiology: Introductory survey of microbiology, emphasizing the role of microorganisms in everyday life.

BIO 485 Virology: Selected topics in virology. Emphasis upon new trends in the study of animal, plant, and bacterial viruses at both molecular and cellular levels.
BIO 487 Epigenetics: Study of epigenetic mechanisms involved in chromatin structure, DNA and histone modifications, gene expression, dosage compensation, imprinting, heterochromatin structure, stem cell differentiation, development, human disease, and environmental-gene interactions.
BIO 488 Essentials of Toxicology: This course is designed to introduce undergraduate students to the fundamentals of toxicology and serve as the key introductory course for students who require a background in toxicology.
BIO 492 Genetics of Complex Traits: Theory, experimental methods, and analysis related to the genetic basis for variation in complex traits, including quantitative and threshold traits in animals and plants, and complex human diseases.
BIO 601 Seminar in Animal Ecology: Literature of animal ecology including both classical and recent papers; using student presentations and class discussions, the ontogeny of some overarching ecological themes explored.
BIO 602 Seminar in Animal Physiology: Discussion of recent breakthroughs in topics ranging from the hormonal and neural mechanisms involved in homeostasis to the interactive effects of physiology and behavior.
BIO 604 Seminar in Ecological Physiology: Discussions of primary literature in the physiological ecology of animals.
BIO 605 Advanced Topics in Ecological Physiology: Study of a major topic in ecological physiology of animals, including mechanisms by which physiological processes change in response to environmental alterations and the ecological significance of those changes.
BIO 606 Advanced Topics in Genetics: Basic mechanisms of gene action in microbes, animals, and plants
BIO 606 Seminar in Evolutionary Biology: Discussion of fundamental concepts involving the interrelationships of population genetics, ecology, systematics, and neo-Darwinian evolution; review of recent literature.
BIO 608 Seminar in Microbiology: Study of recent progress in microbiological research; reading, discussion, and evaluation of current literature.
BIO 609 Advanced Topics in Microbiology: Critical review of current research covering a wide range of topics including infectious diseases, bacterial physiology, marine microbiology, and immunology. Focus on students' interests or needs.
BIO 610 Advanced Topics in Plant Ecology: Studies of special terrestrial communities or plant groups
BIO 611 Advanced Topics in Plant Physiology: The physiology of growth and development in vascular plants treated in terms of phytohormones, nutrition, theories of transport, and environmental factors.
BIO 612 Advanced Topics in Plant Structure and Evolution: Study of current topics in plant structure, development, and evolution. A term paper is normally required.
BIO 612 Seminar in Plant Structure and Evolution: Reading and discussion of current research in plant structure, development and evolution.
BIO 615 Advanced Topics in Vertebrate History: Directed/independent study of classification and phylogeny of particular vertebrate groups that results in a term paper.
BIO 625 Advanced Animal Behavior: Current research and theories including development and evolution of behavior, sociobiology, behavioral genetics, behavioral ecology, and the use of comparative method.

BIO 635 Molecular Toxicology: Molecular mechanisms involved in the toxicant-induced adverse health effects and discussion of molecular pathways altered in cells in response to environmental xenobiotic exposure.
BIO 636 Ecotoxicology: This course is designed to provide an in-depth understanding of the sources and transport of environmental pollutants, and their adverse ecological impacts.
BIO 640 Genes and Signals: Investigates the regulation of gene expression in bacteria, yeast, and higher eukaryotes, and explores how such regulatory systems have evolved.
BIO 641 Entomology: A theoretical and practical overview of the insect orders, selected topics of insect behavior, ecology, and evolution, and an introduction to human-insect interactions.
BIO 645 Ecoepidemiology of Infectious Diseases: Understanding and managing emerging infectious diseases, primarily zoonotic, using an ecologically-based approach. Students learn theory and skills in the epidemiology and ecology of infectious diseases.
BIO 654 Vascular Plant Systematics: Principles, methods, and the history of systematic biology are covered in the context of vascular plant classification and evolution.
BIO 655 Vertebrate Reproduction: An advanced treatment of the diversity of vertebrate reproductive biology, with emphasis on structural, regulatory, behavioral, and evolutionary aspects.
BIO 678 Hormones in Action: Hormonal signaling in humans and other animals is examined using developmental, physiological, behavioral, cellular, and molecular perspectives, with special emphasis on the adrenal glands and the gonads.
BIO 679 Environmental Physiology: Lectures, discussions, and student presentations on the physiology of animals as it is influenced by and is adapted to environmental conditions.
BIO 687 Epigenetics: Study of epigenetic mechanisms involved in chromatin structure, DNA and histone modifications, gene expression, dosage compensation, imprinting, heterochromatin structure, stem cell differentiation, development, human disease, and environmental-gene interactions.
BIO 691 Genetics of Complex Traits: Theory, experimental methods, and analysis related to the genetic basis for variation in complex traits, including quantitative and threshold traits in animals and plants, and complex human diseases.
BLS 363 Ethics and Technology: An examination of ethical problems created by technology. Additional emphasis given to the historical, legal, and cultural impacts technology has had on our society.
CCI 230 Women in Antiquity: Public and private lives of Greek and Roman women of the Classical Period, focusing on women's political, religious, and domestic roles, their general social status, health and welfare.
CHE 205 Introductory Organic Chemistry: A course in organic chemistry designed for students whose programs require only one semester in this area.
CHE 331 Quantitative Analysis: Introduction to the theory and practice of volumetric and gravimetric methods of analysis.
CHE 351 Organic Chemistry I: Chemistry of aliphatic and aromatic compounds with attention to reaction mechanisms and synthetic applications, and the application of spectroscopy to structure determination.

<p>CHE 352 Organic Chemistry II: Continuation of CHE 351 with attention to alcohols, ethers, aldehydes and ketones, carboxylic acids and derivatives, amines, lipids, carbohydrates, and organic spectroscopy.</p>
<p>CST 630 Organization, Democracy, and Community: Draws upon critical organizational communication and critical/cultural studies to consider the role of communication in creating and sustaining democratic organizing in micro, meso, and macro contexts.</p>
<p>CST 632 Seminar in Communication Ethics: Theory and practice of communication ethics in a free society. Issues and cases ranging from intrapersonal to mass media communication situations.</p>
<p>CTP 124 Human Rights: Overview of concepts related to human rights, including Universal Declaration of Human Rights, different civil rights movement in the U.S., and the impact of discrimination on marginalized groups.</p>
<p>CTR 111 Introduction to Recreation and Parks: Historical and philosophical foundations of recreation and parks; examination of agencies providing services, social and economic factors influencing recreation in contemporary society, professional, organizations, and career opportunities.</p>
<p>CTR 203 Fundamentals of Outdoor Leadership: Introduction to basic wilderness living skills, conservation of wild areas, sound safety practices, outdoor leadership theory, and practical application as related to a college outdoor recreation program.</p>
<p>CTR 314 Recreation Services with Underrepresented Groups: Awareness of and sensitivity to the needs of people with disabilities and other disenfranchised individuals with regard to planning, delivering, and evaluating recreation/leisure services in the community.</p>
<p>CTR 444 Recreation, Parks, and Health: Examination of evidence regarding the impacts of recreation, parks, green space, and leisure on the health and wellbeing of individuals and communities.</p>
<p>CTR 611 Foundations of Recreation and Parks: Understand and apply various theories and concepts, as well as current research, which influence the study of leisure behavior and the delivery of recreation services</p>
<p>CTR 613 Recreation and Parks Management: Theories and patterns of management appropriate for leisure service delivery systems. Organizational planning, legal foundations, financial management, personnel management, and the politics of leisure service delivery systems.</p>
<p>CTR 644 Recreation, Parks, and Health: Examination of evidence regarding the impacts of recreation, parks, green space, and leisure on the health and wellbeing of individuals and communities.</p>
<p>ECO 100 Economics of a Global Sustainable Society: Sustainable development, with a natural emphasis on non-Western nations; will consider issues around such topics as demographics, development theories, the environment, health and education, the role of institutions, etc.</p>
<p>ECO 201 Principles of Microeconomics: Introduction to microeconomic principles and analysis. Topics include: the market economy, supply and demand, shortages and surpluses, competition and monopoly, international trade, and public policy issues.</p>
<p>ECO 202 Principles of Macroeconomics: Introduction to macroeconomic principles and analysis. Topics include the national income, the monetary system, inflation, business cycles, fiscal policy, the national debt, exchange rates, balance of payments, and economic growth.</p>

ECO 300 The International Economy: Examines the history, structure, and institutional foundations of the international trading system. Analyzes the impact of trade on economic growth, employment and living standards with a focus on contemporary issues.

ELC 682 Teaching Social Justice: Examines various ways people might teach to promote social justice. Explores conceptual frameworks for understanding issues of oppression and privilege. Opportunity to apply diverse pedagogical strategies.

ENG 327 Writing for Professionals and Entrepreneurs: Principles of written communication emphasizing clarity, precision, audience analysis, arrangement, and collaboration applied to a variety of professional and entrepreneurial writing tasks and workplace settings; includes elements of summaries, reports, and proposals.

GEN 614/BIO614 Prenatal Development: Embryology and Teratology: Human embryological development with emphasis on normal and abnormal development. Issues in teratology and birth defects, clinical problems associated with birth defects and their means of prevention.

GES 451 Seminar in Regional Geography: Case studies of regionalism and the regional method in geography. Notes: May be repeated once for credit when topic changes.

GES 458 Advanced Geographic Information Systems: Advanced concepts and methods in Geographic Information Systems (GIS). Emphasis is placed on the analysis and modeling of geospatial data using raster and vector data models.

GES 459 Advanced Remote Sensing—Imaging: Remote sensing of the environment using scientific visualization and digital image processing techniques.

GES 470 Applied Physical Geography: Applications in physical geography. Topics include field experience in hydrology, dendrochronology, geomorphology, climatology, and mapping.

GES 705 Regional Planning: Regional development and planning processes focused on regional planning techniques and law.

GES 719 Advanced Weather and Climate-Synoptic Climatology: Exploration of atmospheric dynamics and general circulation patterns throughout the world. Emphasis on cyclogenesis, surface-upper atmosphere links, tropospheric waves, vorticity, and forecasting.

GES 722 GIS Applications in Urban Planning: Theory and practice integrating Geographic Information Systems with land use planning practice. Emphasis on advanced analysis and display of spatial data and information in support of land use planning decision-making.

GES 732 Geography of Livable Cities: Advanced study on the processes of urban population and economic growth from the perspective of urban livability. Emphasis on accessing and interpreting data from public or private sources.

GES 740 Seminar in Urban Planning/Economic Development: Directed readings on selected aspects of urban planning/economic development focused on theory and policy issues from a geographic perspective.

GES 741 Seminar in Regional Economic Development: A geographic perspective is applied to analysis of regional economic performance and change in the developed and developing world. Theory is integrated with strategies for development policy and planning.

GRO 602 Seminar Critical Issues of Aging: Analysis of critical issues affecting the aged and how these issues are being addressed using the social ecological model and life course theory.

HDF 111 Human Development Across the Life Span: Study of how development unfolds in diverse contexts and cultures from conception to death and how individual characteristics, relationships, and social settings influence cognitive, social, and psychological development.

HDF 390 Families and Children in Global Perspective: A study of Asian, African, Latin American, and Eastern European families and children, focusing on family structure, gender roles, and socialization practices within their socioeconomic, historical, and cultural context.

HEA 314 Public Health Diseases: Focus on biological concepts and biomedical terms associated with public health disease conditions. Emphasis on etiology, pathogenesis, diagnosis, treatment, risk factors, and their impact on prevention and control.

HEA 607/707 Determinants of Health: Examines how biology, behavior, psychology, culture, and the environment affect population-level health with an emphasis on social, political, economic contexts and structural/institutional bias, racism, and discrimination.

HIS 209 Topics in Modern World History II: Transnational themes in modern African, Asian, or Latin American/Caribbean history explored in a world context, such as: Borderlands, Frontier, and Cultural Change; Contradictions of Colonial Experience; Gender, Labor, and Modernization.

HIS 323 American Indians and Nature: Examines the interaction of American Indians and nature from before European arrival today.

IAR 221 History and Theory of Design I: Survey of design forms evolved in response to humankind's needs for community, architecture, furnishings, and artifacts, with development from prehistoric to modern eras in cultural, political, and technological contexts.

IAR 222 History and Theory of Design II: Survey of design forms evolved in response to humankind's needs for community, architecture, furnishings, and artifacts, with development from prehistoric to modern eras in cultural, political, and technological contexts

IAR 301 Interior Architecture I: Studio investigations of increasingly complex spaces as articulated by the interaction of individual and place. Special emphasis on light, color, materials and structure as aspects of spatial design.

IAR 302 Interior Architecture II: Design investigations of spaces of increasing scale and complexity articulated by the interaction of individual and place. Special emphasis on social/behavioral aspects of interior architecture and responsibilities of designer to society.

IAR 331 Social and Behavioral Aspects of Interior Architecture: Introduction to literature and methods of environmental design research as it applies to interior environments

IAR 401 Advanced Interior Architecture I: Advanced design problems having complex functional, social, and economic implications, with emphasis on problem identification, formulation, and design development. IAR 501 taught as Writing Intensive (WI).

IAR 402 Advanced Interior Architecture II: Advanced design problems having complex functional, social, and economic implications, with emphasis on problem identification, formulation, and design development. IAR 501 taught as Writing Intensive (WI).

IAR 411 Interior Architecture III: Studio investigations of multi-function environments incorporating understanding of light, color, materials, structure, and technology. Emphasis on individual competence with respect to design process

<p>IAR 412 Interior Architecture IV: Studio explorations encompassing the full range of interior architecture scale and complexity. Emphasis on individual competence with respect to design process.</p>
<p>IAR 436 History of Decorative Arts: Study of stylistic and cultural developments in the decorative arts with special concentration on America.</p>
<p>IAR 440 Evolution of Furniture: A study of basic furniture forms—chairs, stools, tables, beds, chests—that follows a chronological route from Ancient Egypt to 21st-century Minimalism and examines changes in each historic period.</p>
<p>IAR 443 Historic Preservation: Principles and Practice: Change in historic preservation theory and practice since the 1800s with emphasis on preservation of built environment, and development of philosophical approach for designers to contemporary preservation projects.</p>
<p>IAR 448 Architectural Conservation: Overview of contemporary architectural conservation principles, practice and technology. Field exercises, group projects and investigation of an individual research topic expand upon lectures and readings.</p>
<p>IAR 455 Field Methods in Preservation Technology: Intensive on-site fieldwork experience addressing issues of architectural conservation and historic building technology. Includes methods, techniques, and theories of preservation technology and accepted conservation practices.</p>
<p>IAR 460 Advanced Computer-Aided Design and Research Seminar: With specific attention to how computational tools affect interior architectural design decision-making processes, rigorous examination of their origins, evolution, applications, and significance will be undertaken.</p>
<p>IAR 465 Materials and Methodologies Seminar: Investigation of materials, methods, and technologies for the design, fabrication, manufacturing, and production of products and components of interior architecture.</p>
<p>IAR 540 Evolution of Furniture: A study of basic furniture forms—chairs, stools, tables, beds, chests—that follows a chronological route from Ancient Egypt to 21st-century Minimalism and examines changes in each historic period.</p>
<p>IAR 601 Advanced Interior Architecture I: Advanced design problems having complex functional, social, and economic implications, with emphasis on problem identification, formulation, and design development. IAR 501 taught as Writing Intensive (WI).</p>
<p>IAR 602 Advanced Interior Architecture II: Advanced design problems having complex functional, social, and economic implications, with emphasis on problem identification, formulation, and design development. IAR 501 taught as Writing Intensive (WI).</p>
<p>IAR 602 Advanced Interior Architecture III: Design issues or problems relevant to the individual student's concentration or area of specialization are explored in real or simulated studio projects.</p>
<p>IAR 628 Identification and Evaluation of the Historic Built Environment: Methods, techniques, and theories of researching, analyzing, documenting, and evaluating the historic built environment. Includes architectural survey field methods, documentation techniques, archival research, and approaches to evaluating historic significance. (Same as HIS 628)</p>
<p>IAR 631 Environmental Design Research: Advanced skills for identifying research questions and methods for accomplishing research in the environmental design field. Design research project is planned. Emphasis on research process including problem identification, literature review, data collection, and analysis.</p>

IAR 636 History of Decorative Arts: Study of stylistic and cultural developments in the decorative arts with special concentration on America.

IAR 643 Historic Preservation: Principles and Practice: Change in historic preservation theory and practice since the 1800s with emphasis on preservation of built environment, and development of philosophical approach for designers to contemporary preservation projects.

IAR 645 Seminar in Interior Architecture: Introduction to basic research methodologies and examination of contemporary research questions and issues in interior architecture and related fields.

IAR 648 Architectural Conservation: Overview of contemporary architectural conservation principles, practice and technology. Field exercises, group projects and investigation of an individual research topic expand upon lectures and readings.

IAR 655 Field Methods in Preservation Technology: Intensive on-site fieldwork experience addressing issues of architectural conservation and historic building technology. Includes methods, techniques, and theories of preservation technology and accepted conservation practices.

IAR 660 Advanced Computer-Aided Design and Research Seminar: With specific attention to how computational tools affect interior architectural design decision-making processes, rigorous examination of their origins, evolution, applications, and significance will be undertaken.

IAR 665 Materials and Methodologies Seminar: Investigation of materials, methods, and technologies for the design, fabrication, manufacturing, and production of products and components of interior architecture.

ISM 402 Logistics / Supply Chain Mgt: Roles of distribution and materials management in operations. Topics include inventory and distribution management, purchasing, logistics and supply chain management. Appropriate software used to facilitate decision-making. (Fall)

KIN 576 Nutrition and Physical Fitness: Metabolism during exercise, ergogenic aids, nutrients' effects on performance, and body composition alterations during training. Gender and age-specific needs and responses to exercise and dietary intake.

LLC 130 Global Green: Cultures of Production and/or Consumption: This course explores global sustainability by tracing products from origin to consumer, examining related cultural practices, including those embodied in literature, film, music, and art. Topics include textiles, chocolate, tea, and ecotourism.

MAS 623 Global Human Rights: Students utilize a fictional case study approach to develop human rights investigation and critical reporting skills, and analyze human rights documents.

MAS 624 Dignity, Identity, and Power: In this course, students will explore ways of understanding the problems of domination and injustice and real or perceived inequity-driven identity group or populist movement formation.

MAS 633 Science, Environment, and the Media: Apply a systemic view of historic and current global environmental issues to deepen understanding and critical evaluation of media.

NAN 609/746 Nanosafety: An interdisciplinary course utilizing variety of academic disciplines (chemistry, physics, biology). Addresses the impact of nanomaterials through the range of organization that exists within living systems (molecular to societal).

<p>NAN 655/755 Biomimetics and Biomaterials: Emphasizes the biomimetic and biological materials development and characterization. Topics range from natural to synthetic biomaterials, characterization of biomaterial properties, and discovery and application of novel biologically inspired materials.</p>
<p>NTR 303 Food Sanitation and Safety: Study of foodborne illness and contamination, prevention, and government regulations as they apply to the foodservice industry.</p>
<p>NTR 543 Maternal and Infant Nutrition: Nutritional needs of pregnant and lactating women, and infants; methods of evaluating nutritional status of these groups; effects of nutrition on pregnancy outcome and infant development.</p>
<p>NUR 330 Global Perspectives on the Health of Women: Global perspectives on women's health issues</p>
<p>NUR 411 Global Health in Nursing: Critical analysis of healthcare practice within a global context. Reflective global community engagement experience integrating academic enhancement, personal growth, and global civic learning.</p>
<p>PCS 433 Restorative Justice: Theory and Models: Examines the principles and practices of restorative justice, evaluating the potentials and limitations of restorative methods and interventions in the US and internationally.</p>
<p>PCS 633 Restorative Justice: Theory and Models: Examines the principles and practices of restorative justice, evaluating the potentials and limitations of restorative methods and interventions in the US and internationally.</p>
<p>PCS 677 International Human Rights Advocacy: Course will explore international human rights norms, laws, theory and practice, with an emphasis on analytical and advocacy skills. Current debates in the field will be explored with implications for policy.</p>
<p>PCS 685 Resolving Conflict in Health Care Systems: Achieving Peace through Health: Peace building and conflict resolution in health care and humanitarian initiatives; human rights and social justice perspective.</p>
<p>PHI 121 Contemporary Moral Problems: Philosophical readings and discussion of such current topics as abortion, euthanasia, capital punishment, censorship, sexual morality, affirmative action and preferential hiring, environmental ethics, population control, and the morality of war.</p>
<p>PHI 131 Science, Technology, & Society: This course explores the relationship between science, technology, and society. Looking at historical and contemporary examples from the sciences, technology, arts, literature, and philosophy, we will discuss contemporary issues such as human enhancement, climate change, and artificial intelligence.</p>
<p>PHI 322 Philosophy of the Arts: Philosophical problems concerning description, interpretation, and evaluation of the visual, performing, and literary arts, discussed generally and in relation to specific works of art. Readings in philosophy and art theory.</p>
<p>PHI 338 Ethics and International Affairs: Critical discussion of topics such as human rights, the morality of war and terrorism, international distributive justice, poverty and international aid, self-determination and secession, immigration policy, and global environmental issues</p>
<p>PHI 338 Ethics and International Affairs: Critical discussion of topics such as human rights, the morality of war and terrorism, international distributive justice, poverty and international aid, self-determination and secession, immigration policy, and global environmental issues.</p>

<p>PHI 361 Ethical Issues in Business: Ethical theory and its application to business: economic justice, corporate responsibility, self-regulation and government regulation, conflict of interest, investment policy, advertising, and environmental responsibility.</p>
<p>PHI 362 Ethical Issues in Entrepreneurship: Application of ethical theory to global entrepreneurship; including entrepreneur's role in ethical actions, economic justice, responsibility, self and government regulation, conflict of interest, investment policy, advertising, and environmental responsibility, and application to direct selling.</p>
<p>PSC 312 Environmental Law and Policy: Study of federal and international environmental law and policy: topics include air and water pollution, hazardous and toxic substances, climate change, atmospheric pollutions, and related issues.</p>
<p>PSC 313 Natural Resources Law and Policy : Study of state, federal, and international natural resources law and policy: topics include acquisition and management of public lands, wildlife, biodiversity, resource conservation.</p>
<p>PSC 349 Human Rights and the Global Citizen: Explores the role of international and nongovernmental organizations, and other non-state actors in the development of international human rights. Analyzes advocacy networks' role in the protections of those rights.</p>
<p>PSC 405 Problems in Politics: Seminar in research and study in political science. Attention also on problems of methodology and alternative conceptions of field of political science as a scholarly discipline.</p>
<p>PSC 410 Topics in Public Policy: Intensive analysis of a major area of public policy. Examination of sources of policymaking, the policymaking process, and the impact of policy. PSC 410A-Politics of Education; PSC 410B-Criminal Justice; PSC 410C-Labor Relations; PSC 410D-Foreign and Defense Policy; PSC 410E-Environmental Policy; PSC 410F-Urban Development Policy; PSC 410G-Health Strategies; PSC 410H-Global Challenges; PSC 410I-Press and Politics; PSC 410J-Politics of Industrial Policy; PSC 410K-Ethics in Public Policy.</p>
<p>PSC 620 Urban and Regional Development Policy: Adapted each year, according to the interests of the class, this course examines 21st century urban and regional development policy, focusing on innovations emerging at the intersection of economy, equity, and the environment in the US and elsewhere.</p>
<p>PSC 630 Community and Economic Development Theory and Practice: Critical analysis of community and economic development theory and practice and its historical and theoretical roots, methods, strategies, and tactics.</p>
<p>RCO 252 Introductory Concepts in Biology: Introduction to major concepts in biology for students who do not plan to take additional biology courses. Explores basic aspects of biology, including genetics, physiology, and ecology. Specific topics may include conservation biology, biotechnology, and current issues.</p>
<p>RCO 255 Introductory Concepts in Earth Science: Survey of basic concepts and processes. Integration of issues pertaining to environmental sustainability with the nature of the earth's three primary physical systems: the solid earth and continents; the ocean basins and the oceans; and the atmosphere's weather.</p>
<p>REL 249 Religion and Public Health: This course examines both the compatibility and conflict between religious perspectives and the scientific foundations of public health. Emphasis will be focused on the cultural influence of religion on individual and community attitudes toward health care practices and how these influence achieving and maintaining public health goals.</p>

REL 336 Native American Religions: In this class we focus on Nave American fights for sovereignty and control of sacred lands in the twentieth and twenty-first centuries. We also consider how Nave Americans are using religion, ritual, and spirituality as a mode of identity formation in contemporary America.

SOC 202 Social Problems in Global Context: This course examines causes of and responses to critical social problems in different world regions with a focus on the dimensions and impacts of globalization.

SOC 329 Sociological Perspectives on Gender: Inquiry into status of women in society with emphasis on socialization, structural and institutional relationships, and continuities and discontinuities in women's roles across the life cycle.

SOC 342 Global Inequalities: Examination of social stratification systems and theories, economic prestige, power inequalities, social mobility, and class consciousness.

SOC 346 Population Problems: Sociological study of basic population processes of fertility, migration, and mortality, including examination of problems associated with changing population size, composition, and distribution.

SOC 370 Environmental Sociology: Introduction to major sociological theories, perspectives and research useful for understanding environmental issues and environmentalism. Primary focus on the U.S., with some attention to Europe and developing countries.

SOC 373 Green Criminology: Study of harms and crimes against the natural environment and the related impacts on human and non-human animals. Students will assess and analyze the causes and consequences of environmental crime.

SOC 377 Disaster, Self, and Society: The anatomy of disasters examined from both anthropological and sociological perspectives. Case studies are presented through several conceptual lenses for clarifying individual, social, cultural, and political responses to catastrophic events.

SOC 628 Social Movements: Sociological approaches to social movements and social conflict emphasizing their genesis, structure, resources, and consequences for simple and complex societies.

SOC 644 Sociology of Globalization: Sociological perspectives on globalization and its effects. Trends in theory and research.

TED 559 Teaching Practices and Curriculum in Science: Development of philosophy of science teaching and of attitudes and values relative to science teaching in secondary school. Emphasis on recent curriculum studies in biology, chemistry, physics, and earth-science and the changing approaches to teaching these subjects.

TED 653 Earth and Space Sciences in the Elementary School: Analysis and expansion of content knowledge and pedagogical content knowledge related to core ideas and crosscutting concepts in earth sciences appropriate for elementary teachers.

TED 653 Earth and Space Sciences in the Elementary School: Analysis and expansion of content knowledge and pedagogical content knowledge related to core ideas and crosscutting concepts in the earth sciences appropriate for elementary teachers.

TED 657 Nature of Science, Technology, and Society: Study of nature of science, encompassing literature from history, philosophy, and sociology of science. Applications of this literature on school science instruction.

TED 765 Research in Equity Education: Examines the research knowledgebase in equity education and facilitates the design of culturally sensitive studies. Particular emphasis on race/ethnicity, gender, and class issues related to the design of research studies that affirm equity and perpetuate social justice.

WGS 375 Topics in Native American and Indigenous Studies: Exploration of the literatures, cultural productions, histories, and politics of indigenous peoples.