

## Sustainability in the Curriculum (Graduate and Undergraduate Courses)

|                     |     |   |   | Pending? | Related or Focused? | Professor/Dept Contact                    | When Offered      | Comments |
|---------------------|-----|---|---|----------|---------------------|---|-------------------|----------|
| <b>ANTHROPOLOGY</b> |     |   |   |          |                     |   |                   |          |
| ANTH                | 208 | Anthropology of Globalization and Development             | Examine cross-cultural definitions and experiences of globalization and development, through topics including colonial legacies of inequality, migration, land use, economic restructuring, media, consumption, tourism, health, and participatory development.   |          | related             | Ann Kingsolver                            | maybe spring 2012 |          |
| ANTH                | 212 | Food and Culture (3)                                      | Biological and cultural interactions in the development of human diets.   |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 213 | Ethnobotany: Plants and Peoples (3)                       | Anthropological overview of past and present uses of plants by people around the world; food, medicine, dyes, smoking, fibers, fuels, construction, beverages, spices.  |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 317 | North American Indians (3)                                | N/A   |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 513 | Anthropological Ethnobotany (3)                           | Survey of how each anthropological subfield studies the interrelationships between plants and peoples. Application of methods, including interviewing and data analysis.  |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 525 | Ethnoecology (3)  | Ethnoecology: the way in which people understand and participate in human-plant-animal-natural interactions. The course is organized into five broad frameworks: native viewpoints, ecoliteracy, folk taxonomy, cultural and biological diversity, and ecosystem management. Students learn how to conduct interviews and participate in two projects, Botanical Knowledge (students need no botanical experience), and Cultural and Biological Diversity in the Carolinas. Taught every other Fall semester, alternating with ANTH 213/513 |          | focused             | Ann Kingsolver                            |                   |          |
| ANTH                | 551 | Medical Anthropology: Fieldwork                           | Application of observation techniques, field notes, informant interviewing, and secondary data analysis to interpreting differential perceptions of health problem solving in the community and clinic.   |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 568 | Nutritional Anthropology (3)                              | Nutritional problems in developing nations. Measures of nutritional status. Social, economic, and environmental aspects of food consumption and nutrition. Biocultural responses to food deprivation and undernutrition.  |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 569 | Environment and Development [=GEOG 569] (3)               | Examination of development theory and environmental implications of social and economic change. Study of general theoretical perspectives will be balanced with case study materials.   |          | focused             | Ann Kingsolver                            |                   |          |
| ANTH                | 581 | Globalization and Cultural Questions (3)                  | This course examines cultural understandings of and responses to globalization, examining topics such as its history and theories, migration, economic integration and inequality, identity, social movements, and the environment.   |          | related             | Ann Kingsolver                            |                   |          |
| ANTH                | 774 | Seminar in Environmental Anthropology and Development (3) | Findings of ecological and economic anthropology applied to problems of contemporary development. Emphasis on less developed countries.   |          | related             | Ann Kingsolver<br>aekingso@mailbox.sc.edu |                   |          |
| <b>BIOLOGY</b>      |     |   |   |          |                     |   |                   |          |
| BIOL                | 301 | Ecology and Evolution (3)                                 | Concepts of evolution, populations and population interactions; communities and ecosystems. Three lecture hours per week  |          | related             | Bob Friedman<br>bobf@biol.sc.edu          |                   |          |
|                     |     |   | Ethnoecology: the way in which people understand and participate in   |          |                     |   |                   |          |

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| BIOL                          | 301L | Ecology and Evolution Lab (1)   | human-plant-animal-natural interactions. The course is organized into five broad frameworks: native viewpoints, ecoliteracy, folk taxonomy, cultural and biological diversity, and ecosystem management   |         |          |  |  |
| BIOL                          | 450  | Principles of Biological Oceanography {=MSCI 450}   | Principles and methods of measuring production in the sea. Emphasis on the ocean's role in the global carbon budget.  |         | related  | Tammi Richardson   |  |
| BIOL                          | 526  | Fall Flora (4)  | N/A   |         | focused? | Nelson   |  |
| BIOL                          | 527  | Spring Flora (4)  | N/A   |         | focused? | Nelson   |  |
| BIOL                          | 528  | The Summer Flora (4)  | N/A   |         | focused? | Nelson   |  |
| BIOL                          | 543  | Comparative Physiology  | A study of phylogeny of physiological systems and functional mechanisms involved in the maintenance of life in zoological forms.  |         | related  | Brian Helmuth  |  |
| BIOL                          | 570  | Principles of Ecology (3)   | Interactions of organisms and the environment; ecosystem structure and functions. Three lecture hours per week.   |         | related  | David Wethey   | every semester                         |
| BIOL                          | 641  | Biophysical Ecology (3)   | This course examines how the mechanisms by which animals and plants interact with their physical environments influence organismal physiology.  |         | related  | Brian Helmuth  | not currently, but hopefully in future |
| BIOL                          | 671  | Plant Responses to the Environment (3)  | This course deals with plant induced responses to both abiotic and biotic environmental stress. Lecture on stratospheric ozone depletion and ultraviolet-B radiation, another lecture on global warming effects on plants, one on global change in the use of our planet with respect to population growth, agricultural production, loss of arable land, erosion etc., and a lecture on plant breeding for more sustainable agriculture world wide, including bioengineering.        |         | related  | Johannes Stratmann<br>johstrat@biol.sc.edu               |  |
| BIOL                          | 750  | Advanced Biological Oceanography {=MSCI 750}  | N/A   |         | related  | Tammi Richardson   |  |
| BIOL                          | 763  | Population Biology/ Mathematical Population Biology/ Proseminar in Mathematical Biology {=MATH523/SCCC411B} | N/A   |         | related  | David Wethey   |  |
| BIOL                          | 765  | Theoretical Ecology (3)   | Theoretical bases of ecology are explored from current literature with topics from organismal, populational, community, and ecosystem approaches. Principles for the construction and testing of hypotheses and models.   |         | related  | David Wethey<br>wethey@biol.sc.edu                       |  |
| <b>BIOSTATISTICS</b>          |      |   |   |         |          |  |  |
| BIOS                          | 808  | Envirometrics (3) {=STAT 708}   | Statistical methods for environmental and ecological sciences, including nonlinear regression, generalized linear models, spatial analyses/kriging, temporal analyses, meta-analysis, quantitative risk assessment.   |         | focused  | Don Edwards  |  |
| BIOS                          | 809  | Envirometrics II {=STAT 709}  | Theoretical underpinnings of environmetrics. Spatial statistics, temporal and longitudinal analysis, hierarchical modeling, and Bayesian inferences for environmental data.   |         | focused  | Don Edwards<br>edwards@stat.sc.edu                       |  |
| <b>Biomedical Engineering</b> |      |   |   |         |          |  |  |
| BMEN                          | 271  | Introduction to Biomaterials  | Synthesis and characterization of polymers, ceramics, gels, hydrogels, rubbers, metals, and peptides; fabrication of implants with biomaterials; methods of surface treatment; immobilization of biomolecules; fabrication of scaffolds for cell seeding; tissues, extracellular matrix, cell-biomaterial interactions; biological testing of biomaterials; blood-biomaterials interactions; degradation of materials in biological environment.                                      | pending | related  | James Blanchette<br>blanchej@engr.sc.edu<br>803-777-1541 | Spring 10<br>Spring 11                 |
| <b>BUSINESS</b>               |      |   |   |         |          |  |  |
| BADM                          | 590X | Sustainability Projects Course  | Sustainability 590X is designed to create an environment where students can research, develop and implement sustainability projects throughout the campus and community. The course will consist of projects where student teams work with clients to establish working relationships in a consulting project environment. By the end of this course, students will be able to execute a real, sustainable project with defined deliverables and gain practical experience of working |         | focused  | Tom Syfert   | spring                                 |

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|                             |     |   | together as a team.  |         |         |                                       |   |
| DMSB                        | 722 | Globalization and Corporate Responsibility (1-5)              | Evolving forces behind globalization, with primary emphasis on corporate responsibility.   |         | focused | Robert Rolfe                          | fall (IMBA Core)                            |
| DMSB                        | 723 | Leadership Skills and Ethical Leader Behavior (1-5)           | Development and assessment of leadership skills in organizations, including ethical leader decision making.  |         | focused | Andy Spicer                           | fall (IMBA Core)                            |
| IBUS                        | 425 | Competitive Strategies in Developing Countries (3)            | Strategies multinational companies use to compete in developing countries. Topics include management of political risk, impact of culture, and corporate responsibility and ethics.  |         | related | Robert Rolfe<br>rolfer@moore.sc.edu   | spring                                      |
| IBUS                        | 738 | International Business and Sustainable Enterprise (3)         | An introduction to international environmental and social management issues that affect an organization's sustainable development initiatives.   |         | focused | Phil Barnes<br>pbarnes@environ.sc.edu |   |
| MGMT                        | 407 | Corporate Social Responsibility and Stakeholder Mangement (3) | This course examines the role of corporate social responsibility in managing organizations. Attention is given to the role of stakeholder management and ethics in organizational decision-making.   |         | focused | Andy Spicer<br>aspicer@moore.sc.edu   |   |
| MGSC                        | 487 | Global Sourcing Strategies and Application (3)                | Course covers skills necessary to pursue sourcing-related careers in manufacturing, services, retailing, and government agencies, including discussion of cutting-edge negotiation and global sourcing strategies pursued in exemplar firms.   |         | related | Andy Spicer                           |   |
| MGSC                        | 871 | Global Sourcing: Strategies and Applications                  | This course covers skills necessary to pursue sourcing and related careers in manufacturing, services, retailing, and government agencies, including discussion of cutting-edge negotiation and sourcing strategies pursued by exemplar firms. |         | related | Andy Spicer                           |   |
| MKTG                        | 350 | Principles of Marketing (3) {501 Honors}                      | Principles and concepts underlying marketing functions, including the conception, pricing, promotion, and distribution of products and services and the role of marketing in society.  |         | related | Crockett                              | fall  |
| MKTG                        | 705 | Marketing Communcations (3)                                   | Advertising, sales promotions, marketing-oriented public relations, event and sponsorship marketing, point-of-purchase communications, and other aspects of integrated marketing communications.   |         | related | Crockett                              | spring 2010, fall 2011                      |
| MKTG                        | 704 | Consumer Behavior   | Concepts, theories, and techniques applicable to obtaining a sophisticated understanding of consumer motives, attitudes, decision-making processes, and satisfaction determinants.   |         | related | Tom Kramer<br>thomas.kramer@m         | spring                                      |
| <b>CHEMISTRY</b>            |     |   |  |         |         |                                       |   |
| CHEM                        | 105 | Chemistry and Modern Society I                                | A conceptual and qualitative approach to chemistry, its evolution, achievements, and goals and its impact on technology, the environment, and modern life and thought. (Specifically designed for non-science majors.)                         | pending | related | Daniel Freeman<br>freeman@chem.sc.edu | Spring 10 Fall 10 Spring 11<br>803-777-8899 |
| CHEM                        | 106 | Chemistry and Modern Man II                                   | A continuation of CHEM 105   | pending | related |                                       |   |
| CHEM                        | 321 | Quantitative Analysis (3)                                     | Gravimetric, volumetric, and introductory instrumental analysis. Three lecture and one recitation hours per week.  |         | related | John Ferry                            |   |
| CHEM                        | 333 | Organic Chemistry (3)   | Contemporary theories, nomenclature, reactions, mechanisms, and syntheses of carbon compounds. Required for chemistry majors.  |         | related | John Ferry                            |   |
| CHEM                        | 334 | Organic Chemistry (3)   | Continuation of CHEM 333. Required for chemistry majors.   |         | related | John Ferry                            |   |
| CHEM                        | 623 | Introductory Environmental Chemistry (3)                      | Study of the chemical reactions and processes that affect the fate and transport of organic chemicals in the environment.  |         | focused | John Ferry                            |   |
| CHEM                        | 624 | Aquatic Chemistry   | Study of the chemical reactions and processes affecting the distribution of chemical species in natural systems.   |         | focused | John Ferry<br>ferry@chem.sc.edu       |   |
| <b>CHEMICAL ENGINEERING</b> |     |   |  |         |         |                                       |   |
|                             |     |   | Reliability, availability, and fault-tree analyses, risk indices, hazard   |         |         | Vincent Van Brunt                     |   |

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| ECHE                     | 567 | Process Safety, Health, and Loss Prevention (3)                     | evaluation, vapor cloud modeling, toxicology, material safety classification and regulations, individual/corporate ethical responsibilities.   | pending- | related                                | vanbrunt@enr.sc.edu spring 11<br>803-777-3115 |   |  |
| <b>CIVIL ENGINEERING</b> |     |   |  |          |  | joe flora, nicole<br>berge, Steve<br>McAnally |   |  |
| ECIV                     | 303 | Civil Engineering Materials (3)                                     | Mechanical and thermal properties of mineral aggregates, cements, concrete, timber, asphalt, metals, and plastics.   |          | related                                | Charles Pierce                                | every fall semester   | Introduces recycled content in construction materials.           |
| ECIV                     | 350 | Introduction to Environmental Engineering (3)                       | Concepts of environmental engineering, including air and water pollution, solid and hazardous waste disposal, and noise pollution. Qualitative and quantitative development of engineering techniques for pollution control.                   |          | related                                | Charles Pierce                                | every semester  |  |
| ECIV                     | 405 | Systems Apps in Civil Engineering (3)                               | Systems approach to analysis and design; application of engineering economic principles to the evaluation of design alternatives; deterministic modeling and optimization emphasizing civil engineering applications.                          |          | related                                | Charles Pierce                                | every semester  |  |
| ECIV                     | 470 | Civil Engineering Design (4)  | Application of hydraulic, geotechnical, and structural principles in design; project scheduling; cost estimation; ethics; environmental and social impact; design drawings; report documents.  |          | related                                | Charles Pierce                                | every semester  | Low Impact Development (LID) and Standard of Care is introduced. |
| ECIV                     | 490 | Nanotechnology in Global Context (3)                                |  |          | focused                                | Charles Pierce                                | new course - once per year                                  |  |
| ECIV                     | 499 | Undergraduate Research in Civil and Environmental Engineering (1-3) | Research experience for undergraduates on current topics in civil and environmental engineering.   |          | dependent on instructor and student(s) | Charles Pierce                                | every semester  |  |
| ECIV                     | 533 | Geosynthetics and Geotechnical Design of Landfills (3)              | Principles for the design, construction, and performance of waste containment systems. Characterization of barrier materials; geosynthetics; design of liner and leachate collection systems; stability and deformation analyses of landfills. |          | related                                | Charles Pierce                                | multi-semester rotation                                     |  |
| ECIV                     | 555 | Principles of Municipal Solid Waste Engineering (3)                 | Fundamentals and engineering principles of solid waste generation, characterization, collection and transport, source reduction and recycling, and physical, chemical, and biological treatment strategies.                                    |          | related                                | Charles Pierce                                | every 1.5 years   |  |
| ECIV                     | 557 | Sustainable Construction for Engineers (3)                          | Instruction to sustainable engineering design alternatives and principles for construction and site development from preconstruction through design and the construction phase   |          | focused                                | Charles Pierce                                |   |  |
| ECIV                     | 562 | Engineering Hydrology (3)   | Applications of hydrologic techniques to design problems; stormwater simulation models; urban stormwater.  |          | related                                | Charles Pierce                                | Low Impact Development (LID) is being gradually introduced. |  |
| ECIV                     | 570 | Land Development for Engineers (3)                                  | Fundamentals of designing and permitting the conversion of land to new or altered states, including environmental issues, traffic and parking, utility resources, site engineering, ADA, safety, planning, and zoning requirements.            |          | related                                | Charles Pierce                                |   |  |
| ECIV                     | 751 | Water and Wastewater Treatment Theory I (3)                         | Physical and chemical water and wastewater treatment processes. Topics include mixing, coagulation, sedimentation, filtration, oxidation, absorption, and ion exchange.  |          | related                                | Charles Pierce                                | once every 3 semesters (Spring 2009 and Fall 2010)          |  |
| ECIV                     | 755 | Industrial Wastewater Treatment (3)                                 | Industrial sources, characteristics, and treatment plant design.   |          | related                                | Charles Pierce                                | once every 3 semesters (Spring 2011)                        |  |
| ECIV                     | 762 | Advanced Hydrology (3)  | Advanced theories and techniques used in stormwater modeling; kinematic hydrology; soil physics infiltration; deterministic and  |          | related                                | Charles Pierce                                | once every 3 semesters                                      |  |

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|                                     |      |   | parametric stormwater models; stochastic methods.  |          |                                |   |                             |
| ECIV                                | 798  | Seminar in Civil and Environmental Engineering (1)                  | Seminar on current topics in civil and environmental engineering. Includes oral presentations by students on their research projects.  |          | dependent on seminar organizer | Charles Pierce  | every semester              |
| <b>COMPUTER SYSTEMS/ENGINEERING</b> |      |   |  |          |                                |   |                             |
| CSCE                                | 206  | Scientific Applications Programming (3)                             | Introduction to computer applications in science and engineering. Programming exercises in a high-level language.  | pending- | NO                             | A Kumar<br>kumara@email.sc.edu<br>I Rouf (fall 10-not listed) | spring 10 fall 10 spring 11 |
| CSCE                                | 567  | Vizualization Tools (3)   | Scientific visualization tools as applied to sampled and generated data; methods for data manipulation and representation; investigation of visualization techniques.  | pending- | NO                             | ?   | not in fall 10 or spring 11 |
| <b>ECONOMICS</b>                    |      |   |  |          |                                |   |                             |
| ECON                                | 505  | International Development Economics (3)                             | Economic theories of growth in developing countries. Use of factor resources; role of social and economic institutions; use of financial trade policies for growth.  |          | related                        | John McDermott  |                             |
| ECON                                | 508  | Law and Economics (3)   | Economic analysis and interpretation of the law. The economic effect of current law and optimal design of law to meet social objectives.   |          | related                        | John McDermott  |                             |
| ECON                                | 548  | Environmental Economics (3)   | An analysis of the economic aspects of environmental decay, pollution control, and natural resource use. Analysis of the ability of the market system to allocate resources efficiently when economic activity is accompanied by environmental damage. Discussion of alternative public policy approaches to pollution control and natural resource conservation.  |          | focused                        | John McDermott  |                             |
| ECON                                | 589D | Sustainable Economic Development (3)                                | In economics, sustainability is defined at providing the typical person alive in the future with a standard of living, both material and environmental welfare, at least as high as that enjoyed by the typical person today (Pezzey 1992). This includes our responsibility to control emissions of stock pollutants and manage the planet's natural resources so as to provide future generations with a high quality of life, without sacrificing too much of our materialistic standard of living. Achieving sustainable economic development is not as easy because material growth often comes at the expense of environmental quality. Economic analysis will be used to cover some of the major topics below: How do we measure sustainability? How much pollution is too much? Is the government up to the job? How can we do better? Resolving Global Issues |          | focused                        | John McDermott<br>uscera@mailbox.sc.edu                       |                             |
| <b>Electrical Science</b>           |      |   |  |          |                                |   |                             |
| ELCT                                | 510  | Renewable Energy Technologies: Photovoltaic Devices and Systems (3) | Introduction to renewable energy technologies and sustainable energy sources with emphasis on principles of solar photovoltaic devices and systems. Devices and systems for practical applications and cost-benefit analysis.  |          | related                        | MANDAL K  | spring                      |
| <b>Mechanical Engineering</b>       |      |   |  |          |                                |   |                             |
| EMCH                                | 427  | Mechanical Design I (3)   | Lecture topics include design specifications and planning, innovation, economic factors, safety, reliability, ethics and social impact. Selection, specification, and feasibility study of an open-ended design project to be completed in EMCH 428.   |          | related                        | Jeff Morehouse  | every semester              |
| EMCH                                | 428  | Mechanical Design II (3)  | Synthesis, analysis, construction, testing, and evaluation of the design begun in EMCH 427. Consideration of economics, safety, reliability, and social impact.  |          | related                        | Jeff Morehouse  | every semester              |
| EMCH                                | 441  | Fundamentals of Automotive Systems (3)                              | Engineering fundamentals of current and future automotive systems and concepts, including internal combustion, electric, and hybrid power systems.   |          | related                        | Jeff Morehouse  | every 3rd semester          |
| EMCH                                | 529  | Sustainable Design and Development (3)                              | System design and development accomplished with consideration of environmental/ecological, economic and social constraints. Introduction to sustainable design including a design project.   |          | focused                        | Jeff Morehouse  | every 3rd semester          |

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| EMCH                                | 551 | Nuclear Energy in the Hydrogen Economy (3)          | The current role of nuclear energy in the US and global energy mix will be described and the potential for future growth will be surveyed, particularly in the development of the hydrogen economy.   |          | related | Jeff Morehouse  | every 3rd semester          |  |  |
| EMCH                                | 558 | Introduction to Nuclear Reactor Systems (3)         | The engineering design and operation of nuclear power plants, covering current and future nuclear power cycles, including sustainable fuel sources and waste handling concepts.   |          | related | Jeff Morehouse  | spring                      |  |  |
| EMCH                                | 576 | Fundamentals and Applications of Fuel Cells (3)     | Study of fuel cell principles, fuel cell characterization, characteristics of the major types of fuel cells, fuel cell and stack components, fuel cell stack and system design, fuel cell applications in portable, transportation, and stationary areas, as well as the current status and future research focus of fuel cells.                                    |          | related | Jeff Morehouse  | every 3rd semester          |  |  |
| EMCH                                | 594 | Solar Heating (3)                                   | The engineering design elements of solar thermal and solar electric systems, for buildings and for large power production.  |          | related | Jeff Morehouse<br>more@cec.sc.edu                         | every 3rd semester          |  |  |
| <b>ENGINEERING</b>                  |     |   |   |          |         |   |                             |  |  |
| ENCP                                | 540 | Environmentally Conscious Manufacturing (3)         | Design for the environment; life cycle analysis; environmental economics and global competitiveness; legal and regulatory affairs; and management of technological change. Interdisciplinary collaboration of engineering, science, math, and business majors.  | pending- | focused | Nicole Berge,<br>Robert Mullen                            |                             |  |  |
| <b>ENGLISH</b>                      |     |   |   |          |         |   |                             |  |  |
| ENGL                                | 434 | Environmental Literature (3)                        | Literature of the natural environment and of human interactions with nature, along with critical theories about human/nature interactions.  |          | Focused | Laura Walls   |                             |  |  |
| <b>ENVIRONMENTAL HEALTH SCIENCE</b> |     |   |   |          |         |   |                             |  |  |
| ENHS                                | 221 | Environmental Pollution and Health {=ENVR 221} (3)  | A survey of pollution (chemical, biological, physical) effects on environmental quality and public health with emphases on how each pollutant class behaves and affects individual and community health over acute to chronic exposure periods.   |          | related | Virginia Shervette<br>shervette@sc.edu<br>803-777-3967    | spring 10 fall 10 spring 11 |  |  |
| ENHS                                | 333 | Sanitation and Environmental Health (3) {=HPEB 333} | Principles of general sanitation and the scientific bases for their control and correction. New problems in today's environment; prospects for the future. Factors affecting pollution levels as they relate to human existence.  | pending- | related |   |                             |  |  |
| ENHS                                | 660 | Concepts of Environmental Health Science (3)        | Environmental health sciences presenting the earth as a complex system in which people, plants, animals, and non-living physical-chemical components interact.  |          | focused | g scott   | summer/fall                 |  |  |
| ENHS                                | 665 | Biofilms in Environmental Health and Disease (3)    | Effect of bacterial biofilm process on many diverse areas. Recognition, prevention, and control of biofilm-related problems in the environment, health care, industry, and engineering.   |          | related | decho   | spring 10                   |  |  |
| ENHS                                | 670 | Environmental Pollutants and Human Health (3)       | Overview of environmental pollutants and their impact on human health; case studies of environmental catastrophes; principles of ecotoxicology; air, water, and land pollution associated with neurotoxicity, toxicology, and carcinogenesis.   | pending- | focused | Charles Fiegley<br>cfeigle@mailbox.sc.edu<br>803-777-6360 | spring 10 spring 11         |  |  |
| ENHS                                | 760 | Fundamentals of Air Pollution (3)                   | Chemical and physical aspects of air pollution and their regulatory problems. An examination of air pollution sources; physical and chemical processes affecting pollutants after emission; pollutants and their effects and the ultimate fate of pollutants. Attention is also given to the legal, administrative, and technical aspects of air pollution control. | pending- | related | Charles Fiegley<br>cfeigle@mailbox.sc.edu<br>803-777-6360 |                             |  |  |
| ENHS                                | 761 | Ecotoxicology of Aquatic Systems (3)                | Lethal and sublethal effects of environmental stressors on organisms living in the water column and in sediments of aquatic systems. Practical techniques of aquatic toxicology, risk assessment and modeling.  | pending- | related | David Volz<br>volz@mailbox.sc.edu<br>803-777-0218         | spring 10 spring 11         |  |  |

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| ENHS | 762  | Fundamentals of Industrial Hygiene (3)                          | Industrial hygiene, including health effects, occupational health standards, and the evaluation and control of occupational health hazards.  | pending- | NO      | r bennett   |                     |  |
| ENHS | 764  | Industrial Hygiene Evaluation (3)                               | An introduction to the evaluation of occupational exposures to hazardous materials found in the work place through utilization of appropriate sampling and measuring techniques.   | pending- | NO      | Charles Fiegley<br>cfeigle@mailbox.sc.edu<br>803-777-6360 | spring              |  |
| ENHS | 765  | Applied Research in the Environmental Health Sciences (3)       | Current and prospective research associated with the multi-disciplinary areas of environmental health sciences. Critical evaluation of scientific research, and technical writing and oral presentations   | pending- | related | Virginia Shervette<br>shervette@sc.edu<br>803-777-3967    | fall 10 spring 11   |  |
| ENHS | 766  | Applied Aquatic Sciences (3)                                    | The course is designed to address current and emerging issues in water sciences and management in three modules. The first module addresses water chemistry, biology and microbiology. The second module studies hydrology, stream ecology and lake ecology. The third module applies the knowledge gained from the first two modules to look at water quality management through the TMDL process.                    | pending- | related | r klot (not in database)                                  | spring 10 spring 11 |  |
| ENHS | 766L | Applied Aquatic Sciences Laboratory (1)                         | Sampling and analysis of the interacting parameters used in assessing water quality and the functioning of aquatic systems.  | pending- | related |   |                     |  |
| ENHS | 767  | Ecological Modeling and Environmental Planning (4) (= MSCI 767) | Concepts in systems ecology and ecological modeling. Emphasis on the use of models and computer simulations in examining environmental interactions, predicting environmental impact, and facilitating the process of environmental planning. Lab practice in model development and computer simulation analysis.  | pending- | focused |   |                     |  |
| ENHS | 768  | Industrial Ventilation and Hazard Control (3)                   | Control of chemical and physical hazards in the occupational environment. Course covers principles and design of health protection systems such as ventilation systems, collection mechanisms, control of physical factors (excluding radioactivity).  | pending- | related | Charles Fiegley<br>cfeigle@mailbox.sc.edu<br>803-777-6360 |                     |  |
| ENHS | 769  | Exposure and Risk Assessment (3)                                | Designing, implementing, and analyzing environmental exposures in the field; error analysis; computation of the value of improved information; hazard identification; dose-response evaluation; and risk characterization.   | pending- | related |   |                     |  |
| ENHS | 770  | Microbial Processes and Pollution (3)                           | Microbial processes which alter the fate, bioavailability, and toxicity of environmental pollutants: biotransformations of metals and organic pollutants; resistance mechanisms and roles of microbial biofilms in toxin transfer.   | pending- | related |   |                     |  |
| ENHS | 774  | Risk Assessment and Interactions of Environmental Toxicants (3) | A study of biological interactions and transformation of environmental toxicants at the cellular and subcellular levels, and assessment of cellular damage as it relates to health hazards and risks. Topics to include: environmental toxicants; exposure measurements; factors affecting interactions and toxicity; metabolism of xenobiotics: types and levels of effects and interactions; and human health risks. | pending- | related | Tara Sabo<br>AttwoodSear<br>Norman?                       | fall 10             |  |
| ENHS | 775  | Resource Management and Environmental Impact Assessment (3)     | Review of ecological principles as applied to environmental impact assessment. Study of the mandates of the National Environmental Policy Act of 1969. Analysis of several impact assessment methodologies.  | pending- | focused | Dwayne Porter<br>porter@sc.edu 803-774-4615               | spring 10 spring 11 |  |
| ENHS | 776  | Environmental Regulation and Planning (3)                       | Survey of major federal environmental legislation. Review of processes and techniques of environmental planning including zoning permits, management plans, assessments, and evaluation methods. Case studies of significant environmental projects.   | pending- | focused |   |                     |  |
|      |      |   | Sources, sinks, transport, and transformation of air pollutants. Health  |          |         |   |                     |  |

|                              |     |   |   |          |         |                                     |                        |  |  |
|------------------------------|-----|---|---|----------|---------|-------------------------------------|------------------------|--|--|
| ENHS                         | 778 | Air Pollution Monitoring and Modeling (3)                 | effects that occur directly or by intermediate transport. Current monitoring methods and modeling techniques for air pollution.   | pending- | related |                                     |                        |  |  |
| ENHS                         | 779 | Applied Environmental Physiology (4)                      | Lecture and laboratory investigations concerning sublethal and lethal physiological responses of aquatic organisms to a variety of environmental pollutants. Stresses the in-depth understanding of the effects of: bacterial and thermal pollution, pesticides/herbicides, industrial chemicals, hazardous materials, and petroleum hydrocarbons on different physiological mechanisms.                        | pending- | related |                                     |                        |  |  |
| ENHS                         | 780 | Advanced Seminar in Environmental Modeling (1-2)          | A critical review of recent advances and case histories in the formulation and use of ecological/ environmental models. Ecosystems analysis and environmental planning.   | pending- | focused |                                     |                        |  |  |
| ENHS                         | 787 | Analytical Concepts for Environmental Health Sciences (3) | Physical and chemical principles of environmental qualitative and quantitative analysis with emphasis on atmospheric, aquatic, and terrestrial samples. Includes use and limitations of instrumental techniques, sampling strategies, data management and reduction, and quality assurance programs.  |          | related | decho                               |                        |  |  |
| ENHS                         | 788 | Concepts of Hazardous Materials Management I (3)          | Physical and chemical principles of environmental qualitative and quantitative analysis with emphasis on atmospheric, aquatic, and terrestrial samples. Includes use and limitations of instrumental techniques, sampling strategies, data management and reduction, and quality assurance programs.  | pending- | related |                                     |                        |  |  |
| ENHS                         | 789 | Concepts of Hazardous Materials Management II (3)         | Chemical and physical properties of hazardous materials; use and storage; disposal options; transportation requirements; site safety considerations; management systems involving hazardous materials.  | pending- | related |                                     |                        |  |  |
| ENHS                         | 790 | Environmental Sanitation (3) {=ENHS 490?}                 | Addresses public health aspects of water, food, & sewerage sanitation including sewerage treatment plants, septic tanks, drinking water, food, confined animal feeding operations, cruise ships, pools/spas/hot tubs and international sanitation during natural or man-made emergencies. Env. sustainability is covered as sustainability affects availability, security and safety of food and water supplies |          | related | R Norman                            | Spring 2011 (1st time) |  |  |
| ENHS                         | 795 | Issues in Coastal Environmental Health (3)                | Problems associated with coastal population growth and development. Emphasis is on the working group approach to ameliorating impacts on ecosystem and human health.  | pending- | related |                                     |                        |  |  |
| ENHS                         | 860 | Environmental Radiation Surveillance (4)                  | Technical coverage relevant to a practical evaluation of radiation sources and contaminants in the environment  | pending- | related |                                     |                        |  |  |
| ENHS                         | 861 | Aerosol Science (3)                                       |   | pending- | related | feigley                             |                        |  |  |
| ENHS                         | 863 | Advanced Topics in Environmental Planning (3)             | Detailed analyses of techniques, especially computer simulation modeling, used in environmental assessment and planning. Emphasis will be on the prediction of the ecological effects of development projects. Students will collectively construct a simulation model for the purpose of environmental assessment.   | pending- | focused |                                     |                        |  |  |
| <b>ENVIRONMENTAL SCIENCE</b> |     |   |   |          |         |                                     |                        |  |  |
| ENVR                         | 101 | Introduction to the Environment (3)                       | Analysis of environmental issues and the role of science in their identification and resolution.  |          | related | Madilyn Fletcher<br>fletcher@sc.edu |                        |  |  |
| ENVR                         | 121 | Green Explorations {=POLI 121} (3)                        | Interdisciplinary seminar combining the intellectual exploration of ecological perspectives with the physical exploration of the local environment. First-year students only.   |          | focused | Madilyn Fletcher                    |                        |  |  |
| ENVR                         | 122 | Green Engagements {=POLI 122} (3)                         | Interdisciplinary seminar on designing, researching, and implementing collaborative projects to promote ecological sustainability. First-year students only.  |          | focused | Madilyn Fletcher                    |                        |  |  |

|                     |     |  |  |   |                                     |  |  |
|---------------------|-----|--|--|---|-------------------------------------|--|--|
| ENVR                | 200 | Natural History of South Carolina (4)                                  | Course provides a general review of plants, animals, and geological features of South Carolina, with an emphasis on connections in the natural world (3 lecture hours and 3 lab hours per week).   | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 201 | Introduction to Environmental Studies I (4)                            | Introduction to interdisciplinary and multidisciplinary perspectives on environmental issues. Required for environmental science majors. Integrative case studies address ways of understanding nature.  | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 202 | Introduction to Environmental Studies II (4)                           | Continuing inter- and multi-disciplinary exploration of relations between environment and society for environmental science majors. Case studies raise issues, challenges, and strategies to achieving sustainability.   | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 221 | Environmental Pollution and Health {=ENHS 221} (3)                     | A survey of pollution (chemical, biological, physical) effects on environmental quality and public health with emphases on how each pollutant class behaves and affects individual and community health over acute to chronic exposure periods.  | related   | Madilyn Fletcher/Virginia Shervette |  |  |
| ENVR                | 500 | Environmental Practicum (3)  | Multidisciplinary research projects related to university or community environmental issues (e.g., energy, water conservation, solid waste, recycling)   | N/A- Madilyn said leave off since changes profs/topics so often | Madilyn Fletcher                    |  |  |
| ENVR                | 501 | Special Topics in the Environment (3)                                  | An in-depth analysis course of a specific interdisciplinary environmental topic. Course content varies and will be announced in the schedule of classes by suffix and title.   | focused   | Madilyn Fletcher                    |  |  |
| ENVR                | 548 | Environmental Economics {=ECON 548} (3)                                | An analysis of the economics aspects of environmental decay, pollution control, and natural resource use. Analysis of the ability of the market system to allocate resources efficiently when economic activity is accompanied by environmental damage. Discussion of alternative public policy approaches to pollution control and natural resource conservation. | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 572 | Freshwater Ecology {=BIOL 572} (3)                                     | Quantitative study of the population, community, and evolutionary ecology of freshwater habitats (lakes, ponds, rivers, streams, wetlands). Includes mandatory field trips.  | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 590 | Environmental Issues Seminar (3)                                       | Collaborative study of a contemporary environmental issue. Field trips required. Restricted to: ENVR majors or special permission of department.   | focused   | Madilyn Fletcher                    |  |  |
| ENVR                | 700 | Current Topics in Environmental Studies (3)                            | Current issues, policies, and regulations pertaining to environmental studies. Emphasizes integrated multidisciplinary approaches toward identification, evaluation, preservation, mitigation, and/or utilization of environmentally sensitive material and sites.   | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 725 | International Environmental Management Systems (3)                     | International environmental management systems standards will be integrated with business planning to provide students with the best strategies for future growth in today's environmentally sensitive global economy.   | focused   | Madilyn Fletcher                    |  |  |
| ENVR                | 800 | Seminar in Environmental Studies (3) {=PHIL 800}                       | Examination of the effectiveness of environmental policies and methods relative to current issues and needs.   | related   | Madilyn Fletcher                    |  |  |
| ENVR                | 835 | Seminar in Environmental Ethics (3) {=PHIL 835}                        | Examination of the intellectual, cultural, and ethical frameworks within which environmental problems arise and are solved.  | related   | Madilyn Fletcher                    |  |  |
| <b>EPIDEMIOLOGY</b> |     |  |  |   |                                     |  |  |
| EPID                | 747 | Investigative Epidemiology: Environmental Factors and Human Health (3) | Emphasis on the epidemiology of selected environmental factors which may affect human health including the identification of health hazards and methods of investigation.  | related   | James Burch<br>burch@mailbox.sc.edu |  |  |

| FINANCE   |     |  |  |          |         |                                  |  |
|-----------|-----|--|--|----------|---------|----------------------------------|--|
| FINA      | 666 | Real Estate and Urban Development                            | An overview of real estate in both the public and private sectors that serves as the basis for advanced study in the various disciplines of real estate and urban development. No prior knowledge of the field is assumed.   | pending- | NO      | Sergey Tsyplakov,<br>Steven Mann |  |
| GEOGRAPHY |     |  |  |          |         |                                  |  |
| GEOG      | 104 | Introduction to Physical Geography (3)                       | The objective of this course is to provide a systematic introduction to physical geography, including the major components of the earth system (atmosphere, hydrosphere, biosphere and lithosphere) as well as regulatory processes, distribution patterns of important aspects, and impacts of human activity. Basic concepts of landform geography, climatology and meteorology, and biogeography. |          | related | Greg Carbone                     |  |
| GEOG      | 201 | Landform Geography (4)                                       | Hydrology, soil science, and interpretation of physical features formed by water, wind, and ice, with emphasis on environmental change.  |          | related | Greg Carbone                     |  |
| GEOG      | 202 | Weather and Climate (4)                                      | Processes that influence weather and climate patterns on the earth.  |          | related | Greg Carbone                     |  |
| GEOG      | 321 | Cities, Environmental Transformation, and Sustainability (3) | An introduction to the impact of urbanization on environmental processes and pathways to greater sustainability.   |          | focused | Greg Carbone                     |  |
| GEOG      | 324 | Landscapes of the US (3)                                     | Geographic change through time in the United States, with emphasis on evolution of the American landscape. Physical environment as modified by human intervention over time within a regional framework.   |          | related | Greg Carbone                     |  |
| GEOG      | 330 | The Geography of Disasters (3)                               | The study of disasters, their triggering mechanisms (natural, human, technological), their spatial distributions from local to global scales, and associated human responses.  |          | focused | Greg Carbone                     |  |
| GEOG      | 343 | Human Impact on the Environment (3)                          | A spatial consideration of the processes, effects, and trends in environmental change resulting from human activity. The problems of resource management and the implications for future habitation of the earth are emphasized.   |          | focused | Greg Carbone                     |  |
| GEOG      | 346 | Climate and Society (3)                                      | Major theories and methodologies for studying the relationship between climate and society.  |          | focused | Greg Carbone                     |  |
| GEOG      | 347 | Water as a Resource (3)                                      | Introduction to spatial and institutional aspects of water availability, demand, and quality. Water storage/conveyance strategies and facilities. Real and perceived flood, drought hazards.   |          | focused | Greg Carbone                     |  |
| GEOG      | 360 | Geography of Wind (3)  | Fundamental principles of wind formation, measurement, and its impacts on the natural and human environment – landscape, human settlement and health, transportation, and energy.  |          | related | Greg Carbone                     |  |
| GEOG      | 365 | Hurricanes and Tropical Climatology (3)                      | Atmospheric circulation, structure, and processes of tropical climates and hurricanes. Forecasting and model simulations of hurricanes. Temporal variations of tropical climate change and hurricanes.   |          | related | Greg Carbone                     |  |
| GEOG      | 371 | Air Pollution Climatology (3)                                | Fundamentals, processes, and issues associated with air pollution. Emphasis is on the role of the atmosphere, how air pollution affects surface climate, and how climate and meteorology influence air quality.  |          | related | Greg Carbone                     |  |
| GEOG      | 511 | Planning and Locational Analysis (3)                         | Scientific approaches to locational problems in urban and regional planning, including regional growth and decline, land use control, public facility location and provision, and locational efficiency.   |          | related | Greg Carbone                     |  |
| GEOG      | 516 | Coastal Zone Management (3)                                  | Analysis of the competing demands for limited resources in the coastal zone with emphasis on the role of management in the resolution of conflicts over resource use.  |          | related | Ellis (prof); Greg Carbone       |  |

|      |     |   |   |         |                                     |  |  |
|------|-----|---|---|---------|-------------------------------------|--|--|
| GEOG | 530 | Environmental Hazards (3)                           | Human and environmental contributions to the generation and management of hazards originating from extreme natural events to technological failures. Contemporary public policy issues at the national and international level.               | focused | Greg Carbone                        |  |  |
| GEOG | 546 | Applied Climatology (4)                             | Analysis of climate applications in natural and human-modified environments. Content may include water resources, solar energy, urban planning, air quality, agriculture, and tourism. Course work includes lab and field experimentation.    | related | Greg Carbone                        |  |  |
| GEOG | 547 | Fluvial Geomorphology (4)                           | Introduction to landforms and processes associated with flowing water at the earth's surface. Hydrology, sedimentology, and theories of channel formation and drainage basin evolution.   | related | Greg Carbone                        |  |  |
| GEOG | 549 | Water and Watersheds (3)                            | Spatial variation of hydrology, water quality, and water-related hazards, including runoff generation, soil erosion, sedimentation, and flood hazards. Emphasizes a watershed perspective using geographic data and methods.                  | related | Greg Carbone                        |  |  |
| GEOG | 564 | GIS-Based Modeling (3)                              | Geographical information systems for modeling physical/human processes in space and time using raster and vector data. Cartographic modeling concepts, embedded models, and GIS-model coupling.   | related | Greg Carbone                        |  |  |
| GEOG | 566 | Social Aspects of Envir. Planning and Mgmt. (3)     | Geographical approach to environmental problems.  | focused | Greg Carbone                        |  |  |
| GEOG | 567 | Long-Term Environmental Change (3) {=GEOL 567}      | Climatic changes of the past and their impact on the physical landscape, with an emphasis on the Quaternary period.   | related | Greg Carbone                        |  |  |
| GEOG | 568 | Human Dimensions of Global Environmental Change (3) | Consequences of increasing anthropogenic changes on environmental systems including the sources of change, regional impacts, and social and policy responses.   | focused | Greg Carbone                        |  |  |
| GEOG | 569 | Environment and Development {=ANTH 569} (3)         | Examination of development theory and environmental implications of social and economic change. Study of general theoretical perspectives will be balanced with case study materials.   | focused | Greg Carbone                        |  |  |
| GEOG | 570 | Geography of Public Land and Water Policy (3)       | Geography of public land, water, and related public trust resources (wildlife, timber, minerals, fuels, recreation, wetlands, coastal zones, wilderness); historical geography of policy; spatial aspects of current research and management. | related | Greg Carbone                        |  |  |
| GEOG | 571 | Microclimatology (4)                                | Field techniques and processes in the atmospheric boundary layer including radiation, soil heat fluxes, turbulence, momentum, latent and sensible heat fluxes, moisture, and evaporation.   | related | Greg Carbone                        |  |  |
| GEOG | 573 | Climatic Change and Variability (3)                 | Observations and theories of climatic change and variability as they occur at different space and time scales. Projections of future climates. Techniques used in climatic change research and impact analysis.                               | focused | Greg Carbone                        |  |  |
| GEOG | 581 | Globalization and Cultural Questions (3)            | This course examines cultural understandings of and responses to globalization, examining topics such as its history and theories, migration, economic integration and inequality, identity, social movements, and the environment.           | related | Greg Carbone                        |  |  |
| GEOG | 730 | Seminar in Environmental Geography (3)              | Review of recent geographic literature on nature-society interactions with an emphasis on identifying research themes and methodologies employed by contemporary geographers.   | focused | Greg Carbone                        |  |  |
| GEOG | 746 | Seminar in Climatology (3)                          | Major theories, measures of climatic change and variability, climate models, statistical analysis, and climate impacts.   | related | Greg Carbone                        |  |  |
| GEOG | 830 | Advanced Seminar in Environmental Geography (3)     | A research seminar where students critically evaluate relevant literature, develop a research proposal, and complete a related research project in environmental geography.   | focused | Greg Carbone<br>greg.carbone@sc.edu |  |  |

| GEOLOGY |     |  |   |          |         |  |  |   |
|---------|-----|--|---|----------|---------|--|--|---|
| GEOL    | 103 | Environment of the Earth (4)                   | Analysis of basic energy cycles of the earth. Interaction of human activity with earth processes to affect the environment.   | pending- | related |  |  | gwen geidel, lakshmi are WORKING ON IT    |
| GEOL    | 110 | Cultural Geology (3)                           | The growth of geological concepts, scientific and non-scientific. The impact of geological factors on human affairs. The role of time and evolution (biological and physical). Restricted to non-science majors.  | pending- | related |  |  |   |
| GEOL    | 205 | Earth Resources (3)                            | Mineral, energy, and water resources with emphasis on geological processes governing their distribution. Intended for non-science majors.   |          | related |  |  | Michael Bizimis mbizimis@geol.sc.edu fall |
| GEOL    | 209 | Use and Misuse of the Earth's Resources (3)    | Integration of the geological, spatial, and hydro-environmental issues arising from extraction, use, and disposal of selected mineral, energy, and water resources.   | pending- | focused |  |  |   |
| GEOL    | 215 | Coastal Envir. of the SE U.S. (= MSCI 215) (3) | Coastal zones of South Carolina and neighboring states, including geologic history, geomorphology, stratigraphy, hydrogeology, shoreline processes, environmental issues and effects of man. Three lecture hours each week plus optional field trips.   | pending- | related |  |  |   |
| GEOL    | 305 | Earth Systems Through Time (4)                 | Survey of earth history, the evolution of continents and oceans, the history of life, and geological dating methods.  | pending- | related |  |  |   |
| GEOL    | 315 | Surface and Near Surface Processes (4)         | Overview of groundwater, surface water hydrology, sediment transport, river systems, and coastal processes.   | pending  | NO      |  |  |   |
| GEOL    | 335 | Processes of Global Environmental Change (4)   | The science of global change, its relation to the hydrosphere, atmosphere, lithosphere, and biosphere. Global system science, biogeochemical cycles, paleoclimatology, glaciation, and eustacy.   | pending  | related |  |  |   |
| GEOL    | 508 | Palynology (3)                                 | Fundamentals of pollen analysis including morphology of modern and fossil forms, use of pollen and spores for correlation, dating, establishing phylogenetic trends, and reconstruction of ancient environments.  | pending  | NO      |  |  |   |
| GEOL    | 524 | Environmental Radioisotope Geochemistry (3)    | Introduction to radioactivity and the use of radionuclides to study environmental processes, including age-dating and biogeochemical cycling in aquatic systems.  | pending  | related |  |  |   |
| GEOL    | 548 | Environmental Geophysics (3)                   | Practical geophysical techniques for exploring the shallow subsurface. Seismic, resistivity, well log, gravity, magnetic methods. Field exercises to collect and analyze data.  | pending  | related |  |  |   |
| GEOL    | 560 | Earth Resource Management (3)                  | An approach to problems of resource management by lecture and seminar using case studies in mineral, energy, hydrogeological, and environmental science.  | pending  | related |  |  |   |
| GEOL    | 561 | Environmental Field Geology (6)                | An introduction to field methods in sedimentology, structural geology, hydrogeology and geophysics with special reference to geological hazards and environmental problems.   | pending  | related |  |  |   |
| GEOL    | 567 | Long-Term Environmental Change (3) (=GEOG 567) | Climatic changes of the past and their impact on the physical landscape, with an emphasis on the Quaternary period.   | pending  | focused |  |  |   |
| GEOL    | 570 | Environmental Hydrogeology (3)                 | Environmental considerations of the hydrologic cycle, occurrence and movement of ground water, aquifer analysis and water well emplacement and construction. Water quality, pollution parameters, and the geochemistry of selected natural systems. The effects of environmental problems, waste disposal, and urban development upon the aqueous geochemical regime. | pending  | related |  |  |   |

|                               |     |  |  |         |         |   |                             |
|-------------------------------|-----|--|--|---------|---------|---|-----------------------------|
| GEOL                          | 571 | Soil Hydrology (4)                                       | Saturated and unsaturated water flow through soils, pore pressure development, runoff generation, and watershed response to rainfall.  | pending | NO      |   |                             |
| GEOL                          | 575 | Introduction to Groundwater Modeling (3)                 | Mathematical and numerical models describing groundwater flow and contaminant transport; with application of numerical models.   | pending | NO      |   |                             |
| GEOL                          | 702 | Environmental Earth Science for Teachers (4)             | The hydrologic cycle in geologic settings of this region, and the effects of urbanization and industrialization on groundwater, rivers, and coasts. The vulnerability of urban and industrial systems to natural geologic processes.                       | pending | related |   |                             |
| GEOL                          | 713 | Environmental Aspects of Paleontology (3)                | Analysis of current thought and current research in paleoecology and taphonomy.  | pending | related |   |                             |
| GEOL                          | 743 | Decision-Making in Environmental Resource Management (3) | Environmental project planning and management. Types and magnitudes of environmental problems; environmental pathways; environmental data acquisition and analysis; protection versus restoration; risk assessment; site assessment.                       | pending | focused |   |                             |
| GEOL                          | 744 | Decision-Making in Energy Resource Management (3)        | An integrative seminar for science managers. Consideration of the technical, managerial, and financial aspects of decision making in geologic enterprises, with emphasis on hydrocarbon exploration.   | pending | related |   |                             |
| GEOL                          | 755 | Environmental Measurements and Analysis (3) [= BIOL 755] | A field and laboratory course designed to acquaint students with basic techniques needed to measure and analyze various biotic and abiotic environmental parameters in estuarine and shallow water habitats.   | pending | NO      |   |                             |
| GEOL                          | 773 | Water Quality and Pollution (3)                          | The nature of water; physical, chemical, and biological quality parameters. Techniques of quantitative analysis, methods of water quality control, and pollution abatement. Hydrogeochemical interactions and effects on water quality and waste disposal. | pending | related |   |                             |
| <b>GERMAN</b>                 |     |  |  |         |         |   |                             |
| GERM                          | 295 | Green Technology in Germany                              | This course examines the roots and culture of environmentalism in Germany, environmental initiatives, and the newest green technology innovations and compares green practices around the world to practices within Europe.                                | pending | related |   |                             |
| <b>HISTORY</b>                |     |  |  |         |         |   |                             |
| HIST                          | 108 | Science and Technology in World History                  | The development of science and technology and their roles in world civilizations from antiquity to the present.  | pending | NO      | Emily Brock<br>brockEK@mailbox.sc.edu<br>803-777-7092 | Spring 10 Fall 10 Spring 11 |
| HIST                          | 378 | The Urban Experience in Modern Europe                    |  |         | related | Tom Lekan   |                             |
| HIST                          | 448 | American Environmental History                           | Interaction of cultural values, economic interests, public policy, and technology with the physical environment over time.   |         | focused | Tom Lekan   | Spring 10                   |
| HIST                          | 493 | Special Topics   |  |         | related | Tom Lekan   |                             |
| HIST                          | 498 | Senior Seminar   |  |         | related | Tom Lekan   |                             |
| HIST                          | 700 | Grad Seminar- Envisioning Landscape                      |  |         | related | Tom Lekan<br>lekan@sc.edu                             |                             |
| <b>HOSPITALITY MANAGEMENT</b> |     |  |  |         |         |   |                             |
| HRTM                          | 383 | Ecotourism (3)   | Focuses on tourism that is nature-based and entails a learning component while being managed for environmental, economic, and sociocultural sustainability.  |         | focused | HARRILL R<br>rharrill@hrsm.sc.edu                     |                             |
| HRTM                          | 482 | Sustainable Tourism Planning and Policy (3)              | Principles and practice of tourism planning fostering sustainable tourism development at international, national, state, regional, local and site levels.  |         | focused | HARRILL R<br>rharrill@hrsm.sc.edu                     |                             |
| HRTM                          | 485 | Sustainable Tourism (3)                                  | Principles and practices of environmental, economic, and sociocultural sustainability in tourism are described and analyzed.   |         | focused | HARRILL R<br>rharrill@hrsm.sc.edu                     |                             |
|                               |     |  | Study of the economic, social, cultural, political, and environmental  |         |         |   |                             |

|                   |      |  |  |         |         |   |              |  |  |
|-------------------|------|--|--|---------|---------|---|--------------|--|--|
| HRTM              | 597  | Global Travel and Tourism (3)                | considerations of international tourism management and development.  |         | focused | Xiang (Robert) Li<br>robertli@mailbox.sc  | most springs |  |  |
| <b>JOURNALISM</b> |      |  |  |         |         | Shirley Carter, Tom Klipstine, Jeff Ranta |              |  |  |
| JOUR              | 328  | Principles of Public Relations (3)           | Methods used by business, government, consumer groups, minorities, environmentalists, and others to influence public attitudes toward their activities.  | pending | related |   |              |  |  |
| JOUR              | 335  | Reporting (3)                                | Covering specific news assignments and writing under deadline pressure.  | pending | NO      |   |              |  |  |
| JOUR              | 364  | Introduction to Visual Communications (3)    | Theory and history of visual communication in the mass media emphasizing informational and persuasive messages created by graphic, photographic, and multimedia processes.   | pending | NO      |   |              |  |  |
| JOUR              | 436  | Public Relations Writing (3)                 | Special areas of writing for public relations.   |         | related | Ranta                                     |              |  |  |
| JOUR              | 463M | Green Marketing                              | N/A  |         | related | Ranta                                     | Maymester    |  |  |
| JOUR              | 531  | Public Relations Campaigns (3)               | Development of public relations campaigns for business and social institutions. Case studies of public relations campaigns and programs.   |         | related | Ranta<br>ranta@gwm.sc.edu                 |              |  |  |
| JOUR              | 540  | Magazine Article Writing (3)                 | Researching, organizing, writing, and marketing articles for publication in general and specialized publications.  | pending | NO      |   |              |  |  |
| JOUR              | 562  | The Journalism of Science and Technology (3) | Explores the role of the media in shaping perceptions of scientific issues and public policy. Emphasis on methods of communicating technical information to various publics.   | pending | related |   |              |  |  |
| JOUR              | 566  | Public Relations Management (3)              | Researching, programming, staff, budgeting, and planning public-relations programs by business, government, or consulting firms.   |         | related | Ranta                                     |              |  |  |
| JOUR              | 568  | Public Relations Practicum (3)               | Application of public relations techniques and skills in preparation of full-scale campaign.   | pending | NO      |   |              |  |  |
| JOUR              | 547  | Independent Study: The Carolina Agency       | Individual mass media projects. Contract approved by instructor, advisor, and department head is required for undergraduate students.  |         | related | Ranta                                     |              |  |  |
| <b>LAW</b>        |      |  |  |         |         | Cinnamon Carlarne<br>carlarne@law.sc.edu  |              |  |  |
| LAWS              | 565  | Coastal Conservation Law                     | This course examines Federal, state, and local laws meant to balance development and conservation of coastal property.   | pending | related |   |              |  |  |
| LAWS              | 651  | Land Use Planning                            | A study of regulation of land use. Topics include zoning, subdivision regulation, and takings. One emphasis of course is on practice in the area. To accomplish this goal, class methodology will include use of problems, based on South Carolina law and on the City of Columbia Code, that will be worked on in teams. In addition, students will be required to attend a total of four meetings of councils/commissions during the semester. | pending | related |   |              |  |  |
| LAWS              | 666  | International Environmental Law              | This course looks at the nature of the international law process in this area (with its limited number of treaty and substantive law principles), economic perspectives on natural resource usage, state sovereignty and abiding tensions between industrialized and developing countries concerning pollution problems (beyond prohibitions, to technology transfer and the " who pays " question).   | pending | focused |   |              |  |  |
| LAWS              | 684  | Environmental Law of Natural Resources       | This course examines the role of laws and legal institutions in ensuring sustainable and efficient use of natural resources.   | pending | focused |   |              |  |  |

|                       |     |  |  |         |         |  |   |  |
|-----------------------|-----|--|--|---------|---------|--|---|--|
| LAWS                  | 731 | Federal Environmental Law                              | This is an introductory course in environmental law. The purpose is to give interested students a background in a number of federal environmental statutes, including NEPA (National Environmental Policy Act) CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) ESA (Endangered Species Act) and CWA (Clean Water Act). There will also be some study of the relationship of environmental regulation and the taking of private property under the Fifth amendment.   | pending | focused |  |   |  |
| LAWS                  | 734 | Climate Change Law and Policy                          | This seminar explores the challenges global climate change poses to law-makers at the local, national, and international levels.   | pending | focused |  |   |  |
| LAWS                  | 736 | Dealing with Environmental Law and Policy in the Media | This seminar on Dealing with Environmental Law and Policy in the Press will engage students in the study of attracting and managing press coverage of environmental legal and policy issues and understanding the role of mass media with respect to environmental law and policy.   | pending | related |  |   |  |
| LAWS                  | 738 | Environmental Law of South Carolina                    | This is a course in environmental law in South Carolina. Starting with the SC Pollution Control Act and case law interpreting that statute, the course will explore the relationship between Federal statutes (Clean Water Act, Clean Air Act, Safe Drinking Water Act, RCRA, CERCLA) and the counterpart state laws.  | pending | related |  |   |  |
| LAWS                  | 804 | Environmental Advocacy Seminar                         | This course explores and develops practical advocacy skills in the area of environmental representation. Topics include: case planning; administrative, legislative, and litigation practice; policy development; settlement/negotiation; remedies; ethical considerations and effective communication between lawyers and environmental scientists, engineers, and other professionals. In order to facilitate meaningful learning regarding all aspects of advocacy, the course relies heavily on simulations, guest lecturers from lawyers and non-lawyers, and collaborative work. | pending | related |  |   |  |
| LAWS                  | 805 | Environmental Law Clinic                               |  | pending | related |  |   |  |
| LAWS                  | 816 | Introduction to Environmental Law and Policy           | Intensive one credit course on certain basics of environmental law and policy. The course will cover: relevant history of environmental law and policy; fundamental statutory, regulatory and case law as well as other authorities in the environmental field; an overview of the relevant federal agencies; and a case study.  | pending | related |  |   |  |
| LAWS                  | 826 | Energy Law and the Environment                         | This course is an introductory course in energy law and policy, with a focus on the effects of choices of energy sources on the environment and natural resources.   | pending | focused |  |   |  |
| LAWS                  | 834 | Public Interest Environmental Law                      | This course allows students to explore the practice of public interest environmental law primarily through a directed research project culminating in an original scholarly work.  | pending | related |  |   |  |
| <b>MEDIA ARTS</b>     |     |  |  |         |         |  |   |  |
| MART                  | 371 | The Moving Image (3)                                   | Advanced communicative elements of moving images including editing patterns and the grammar of film and video.   | pending | NO      |  | david voros                                   |  |
| MART                  | 380 | Web Media Arts (3)                                     | An introduction to the design, development, and implementation of Web-based media, including current technologies and design issues related to the development of Web sites.   | pending | NO      |  |   |  |
| <b>MARINE SCIENCE</b> |     |  |  |         |         |  |   |  |
| MSCI                  | 101 | The Ocean Environment (3)                              | N/A  |         | related |  | Claudia Benitez-Nelson<br>cnelson@geol.sc.edu |  |
|                       |     |  | Origin, evolution, and diversity of marine life, biological production,  |         |         |  |   |  |

|      |     |   |  |
|------|-----|---|--|
| MSCI | 102 | The Living Ocean (4)                                      | trophic dynamics, nutrient cycles, marine resources, and environmental concerns. Three lecture and three laboratory hours per week. Scheduled field trips required.  |
| MSCI | 210 | Oceans and Man (3)  | A nontechnical introduction to human interactions with the marine environment: marine organisms, marine systems, and the physical and chemical characteristics of oceans and estuaries. Not available for marine science major credit.   |
| MSCI | 215 | Coastal Envir. of the SE U.S. {= GEOL 215} (3)            | Coastal zones of South Carolina and neighboring states, including geologic history, geomorphology, stratigraphy, hydrogeology, shoreline processes, environmental issues, and effect of man. Three lecture hours each week plus optional field trips. Not available for marine science major credit.   |
| MSCI | 311 | Biology of Marine Organisms (4)                           | Biological concepts emphasizing adaptation to marine environments. Laboratory experiments emphasize principles and techniques of marine biological study.  |
| MSCI | 390 | Science and Environmental Policy (3)                      | Selected issues in the use of scientific information in resource management policies. Readings, invited lecturers, discussions and debate, and a required field trip.  |
| MSCI | 450 | Principles of Biological Oceanography {=BIOL 450}         | Principles and methods of measuring production in the sea. Emphasis on the ocean's role in the global carbon budget.   |
| MSCI | 460 | Field and Laboratory Investigations in Marine Science (4) | Intensive inquiry-based investigations combining oceanographic field sampling with laboratory measurements of collected samples using modern analytical instrumentation, and with analysis and integration of data into a final research report. Course conducted in residence at a marine field site. |
| MSCI | 505 | Senior Seminar (1)  | N/A  |
| MSCI | 510 | Invertebrate Zoology (4)                                  | Phylogenetic and comparative aspects of anatomy, physiology, reproduction, and embryology of the invertebrates.  |
| MSCI | 524 | Environmental Radioisotope Geochemistry (3)               | Introduction to radioactivity and the use of radionuclides to study environmental processes, including age-dating and biogeochemical cycling in aquatic systems.   |
| MSCI | 536 | Ichthyology (4) {BIOL 536}                                | Phylogeny, morphology, behavior, and ecology of fishes. Three lecture and 3 laboratory hours plus three field trips to be arranged.  |
| MSCI | 537 | Aquaculture (3) {=BIOL 537}                               | Introduction to the practical and scientific aspects of the commercial culture of freshwater and marine organisms. Three lecture hours per week. One all-day field trip required.  |
| MSCI | 538 | Behavior of Marine Organisms (4) {=BIOL 538}              | The identification of behavioral adaptations of estuarine and marine organisms: their ecology, physiology, development, and evolutionary history; field observations.  |
| MSCI | 557 | Coastal Processes {= GEOL 557} (3)                        | Physical and geological processes controlling the formation and evolution of beach, barrier, and nearshore environments, including discussion of coastal management issues. Field trip(s) to coastal environments.   |
| MSCI | 575 | Marine Ecology (3) {=BIOL 575}                            | Structure, dynamics, and interactions between populations and communities in marine ecosystems. Three lecture hours per week. Attendance at designated departmental seminars is required.  |
| MSCI | 580 | Satellite Oceanography (3) {=GEOL 580}                    | This course provides knowledge of various techniques used in satellite remote sensing of the oceans. Key skills will be developed in   |

|         |  |  |  |
|---------|--|--|--|
| related | Tammi Richardson<br>tammirichardson@gmail.com                                    |  |  |
| focused | Virginia Shervette<br>shervette@sc.edu   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Blaine Griffen   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Tammi Richardson   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| ?       |  |  |  |
| related | Blaine Griffen<br><a href="mailto:bgriffen@biol.sc.edu">bgriffen@biol.sc.edu</a> |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Claudia Benitez-<br>Nelson   |  |  |
| related | Claudia Benitez-   |  |  |

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|                          |      |  | satellite data processing, image analysis, and hands-on research.  |         |         | Nelson                 |                        |
| MSCI                     | 581  | Estuarine Oceanography (3) {=GEOL 581}       | Estuarine kinematics and dynamics; classification of estuaries; estuarine circulation and mixing.  |         | related | Claudia Benitez-Nelson |                        |
| MSCI                     | 627  | Marine Phytoplankton (3) {=BIOL 627}         | Examines the physiology and ecology of phytoplankton, including environmental controls on community composition, primary productivity, and detection and characterization of water quality (eutrophication) and harmful algal blooms.      |         | related | Claudia Benitez-Nelson |                        |
| MSCI                     | 750  | Advanced Biological Oceanography {=BIOL 750} | N/A  |         | related | Tammi Richardson       |                        |
| <b>MARKETING</b>         |      |  |  |         |         |                        |                        |
| MKTG                     | 350  | Principles of Marketing (3) {501 Honors}     | Principles and concepts underlying marketing functions, including the conception, pricing, promotion, and distribution of products and services and the role of marketing in society.  |         | related | Crockett               | fall                   |
| MKTG                     | 705  | Marketing Communications (3)                 | Advertising, sales promotions, marketing-oriented public relations, event and sponsorship marketing, point-of-purchase communications, and other aspects of integrated marketing communications.   |         | related | Crockett               | spring 2010, fall 2011 |
| <b>NAVY</b>              |      |  |  |         |         |                        |                        |
| NAVY                     | 402  | Naval Leadership and Ethics (3)              | Integration of professional military competencies and qualities of effective leadership with emphasis on moral and ethical responsibilities, accountability, communications, and military law for the junior officer.                      | pending | related |                        | michael?               |
| <b>PHILOSOPHY</b>        |      |  |  |         |         |                        |                        |
| PHIL                     | 101A | Ethics of Food (3)                           | Introduction to range of ethical questions and concerns related to food production and consumption.  |         | related | kevin elliot           | spring                 |
| PHIL                     | 322  | Environmental Ethics (3)                     | Examination of principles and arguments surrounding moral issues involving the environment.  |         | related | kevin elliot           | frequently             |
| PHIL                     | 323  | Ethics of Science and Technology (3)         | Role of ethical judgments in directing or curtailing scientific research; case studies from natural and social sciences.   |         | related | kevin elliot           | frequently             |
| PHIL                     | 325  | Engineering Ethics (3)                       | An investigation of ethical issues in engineering and engineering-related technology. Topics include whistleblowing, employee/employer relations, environmental issues, issues related to advances in information technology, and privacy. |         | related | kevin elliot           | frequently             |
| PHIL                     | 535  | Ecofeminism (3) {WGST 535}                   | An exploration of the connections between oppression of women and oppression of nature.  |         | related | kevin elliot           | not often              |
| PHIL                     | 800  |  | 5 Examination of the effectiveness of environmental policies and methods relative to current issues and needs.   |         | related | kevin elliot           | not often              |
| PHIL                     | 835  | Environmental Ethics Seminar (3) {=ENVR 835} | Examination of the intellectual, cultural, and ethical frameworks within which environmental problems arise and are solved.  |         | related | kevin elliot           | every other fall       |
| <b>POLITICAL SCIENCE</b> |      |  |  |         |         |                        |                        |
| POLI                     | 121  | Green Explorations {=ENVR 121} (3)           | Interdisciplinary seminar combining the intellectual exploration of ecological perspectives with the physical exploration of the local environment. First-year students only.  |         | focused | David Whiteman         |                        |
| POLI                     | 122  | Green Engagements {=ENVR 122} (3)            | Interdisciplinary seminar on designing, researching, and implementing collaborative projects to promote ecological sustainability. First-year students only.   |         | focused | David Whiteman         |                        |
| POLI                     | 365  | State Government (3)                         | A study of state-federal relations, relations among states, state constitutions, and the structure and functions of the three branches of government. Emphasis is given to South Carolina.   |         | related | David Whiteman         |                        |
| POLI                     | 368  | Interest Groups and Social Movements (3)     | The mobilization, organization, tactics, and results of group-based politics, including latent interests and the suppression of interests.   |         | related |                        |                        |
| POLI                     | 370  | Introduction to Public Administration (3)    | A study of the basic principles and theory of administrative structure, responsibility, and control in relation to policy making in the modern   | pending | NO      |                        |                        |

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|      |     |   | state.  |         |         |                |  |  |
| POLI | 374 | Public Policy (3)                                 | Process of and major approaches to making public policy particularly, in the United States. Case study materials will focus on such major policies as welfare, health care, national security, and resource management.   |         | related | David Whiteman |  |  |
| POLI | 380 | Comparative Politics of Developing Countries (3)  | A comparative analysis of the political problems confronting new nations, the political consequences of the breakdown of traditional society and the problems of developing new institutional forms and procedures.   | pending | related |                |  |  |
| POLI | 421 | Law and Contemporary International Problems (3)   | The growth of law in several areas of increasing international concern: environmental protection, expropriation, outer space, individual rights and obligations, conservation of resources, state responsibility, and terrorism.  | pending | related |                |  |  |
| POLI | 431 | Science, Technology, and Public Policy (3)        | Interaction between science and politics, the making of the national science and technology policy, and the role of public policy in promoting and managing scientific change.  | pending | related |                |  |  |
| POLI | 452 | The Judicial Process (3)                          | A study of the growth of law, the law-making function of the courts, the structure and organization of federal and state courts, the procedures involved in civil and criminal cases, and the problems and proposals for reform in the administration of justice.   | pending | NO      |                |  |  |
| POLI | 462 | The Legislative Process (3)                       | A study of the structure, organization, powers, functions, and problems of legislative bodies.  | pending | NO      |                |  |  |
| POLI | 463 | The American Chief Executive (3)                  | Constitutional, statutory and political powers and roles of the American chief executive.   | pending | NO      |                |  |  |
| POLI | 465 | Psychology and Politics (3)                       | The role of psychology in political attitudes and behavior. Examination of individual psycho-political relationships and aggregate typologies. Particular emphasis on the psychological roots of the need for or the rejection of political authority.  | pending | NO      |                |  |  |
| POLI | 470 | Federalism and Intergovernmental Relations (3)    | The origins and evolution of the American federal system, focusing on the constitutional, regulatory, and financial entanglements among federal, state and local governments.   | pending | NO      |                |  |  |
| POLI | 477 | Green Politics (3)                                | An analysis of political responses to ecological issues, including both general perspectives on the nature of social and environmental problems as well as specific local, state, national, and global concerns. Vs. An analysis of green political thought and environmental movements at the local, state, national, and global levels. |         | focused | David Whiteman |  |  |
| POLI | 478 | Environmental Policy (3)                          | Themes in environmental policy in industrialized nations. Analysis of issue framing, the role of the public and private tools, and conflicting perspectives. Incorporates analysis of policy process and public management.   |         | focused | David Whiteman |  |  |
| POLI | 554 | Law and Society (3)                               | The American judicial system, including the decision to resolve disputes by legal means, political influence on the legal system, the social impact of legal rulings, the relationship of the courts to other branches of government, and the applicability of higher law concepts in judicial decision making.                           | pending | NO      |                |  |  |
| POLI | 567 | American Local Government (3)                     | An introduction to the institutions, functions, policy-making processes, and politics of American local government.   |         | related | David Whiteman |  |  |
| POLI | 570 | South Carolina Government and Politics (3)        | South Carolina state and local government in the context of South Carolina history and U.S. state and local government.   | pending | NO      |                |  |  |
| POLI | 730 | Science, Technology and International Affairs (3) |   | pending | related |                |  |  |

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|--|------|---|--|---------|----------|--|-------------|
| POLI   | 732  | International Law (3)   | Study of the role of law in international relations, emphasizing both substantive and theoretical problems relating to development of systems of law in such areas as war, protection of human rights, outer space and oceans, and international commerce.   | pending | NO       |  |             |
| POLI   | 754  | Public Accountability and Ethics (3)  | An examination of the legal, political, professional, and organizational accountability demands made on administrators; the interplay of these demands with the needs for ethical decision making and integrity.   | pending | related  |  |             |
| <b>PSYCHOLOGY</b>                            |      |   |  |         |          |  |             |
| PSYC   | 487  | Community Psychology (3)  | Application of knowledge from other areas of psychology to the study of the role of the individual in the community  | pending | NO       |  |             |
| PSYC   | 489  | Community Psychology Practicum (3)  | Supervised, structured field experience in a community agency, applying psychological principles, theory, and research. May be repeated once for credit.   |         | related  | Brad Smith                               | spring/fall |
| <b>PUBLIC HEALTH</b>                         |      |   |  |         |          |  |             |
|  |      |   | charlie adams  |         |          |  |             |
| PUBH   | 102  | Introduction to Public Health (3)   | An introduction to the history, theory, and practice of public health. Emphasis will be on the population perspective and the ecological model including the population impacts of health care systems.  | pending | related  |  |             |
| PUBH   | 499  | Foundations of Public Health Leadership (3)   | An introduction to core principles in public health leadership. Areas included are ethics, public health issues, communication issues, leadership competencies, and leadership values.   | pending | related  |  |             |
| <b>HONORS COLLEGE</b>                        |      |   |  |         |          |  |             |
| SCHC   | 333Y | Proseminar: Local Food as a Catalyst for Community Transformation: Putting Green Values into action |  |         |          | David Whiteman/Carter Cox                | spring 11   |
| SCHC   | 434N | Global Security   | In this seminar, we will examine the major threats to global security, including, but not confined to, nuclear proliferation, terrorism, economic instability, and ecological crises. We will try to understand these challenges, both their character and possible solutions, in terms of decades, not years. |         |          | Peter Sederberg<br>sederberg@schc.sc.edu | spring 11   |
| SCHC   | 285B | Proseminar: Natural history of South Carolina   |  |         | related? | Rudy Mancke                              | fall 10     |
| <b>geology seminar?</b>                      |      |   |  |         |          |  |             |
|  |      |   |  |         |          | gwen geidel                              |             |
| SGEL   | 103  | Environmental Earth Science   | Broad range of interactions between the planet and the human species, to develop and suggest solutions to the problem areas.   | pending | focused  |  |             |
| SGEL   | 121  | Geology of North America  | Use of national parks to consider the role of systems of protected areas in developing relationship with the land.   | pending | related  |  |             |
| SGEL   | 131  | Earth Resources   | currently published case studies & news articles on particularly problematic resources, e.g. water, energy   | pending | focused  |  |             |
| SGEL   | 101  | Physical Geology  | Sustainability is considered as an introductory concept for consideration of physical processes.   | pending | focused  |  |             |
| SGEL   | 241  | Environmental Geology of South Carolina   | We study background information on environmental geology to give us the wherewithal to analyze and respond to environmental challenges of the region.  | pending | related  |  |             |
| <b>Science and Mathematics for Educators</b> |      |   |  |         |          |  |             |
| SMED   | 587  | Interdependence of Living Systems   | Integrated study of the biotic and abiotic environments combining life, earth, and physical science concepts to understand relationships in living systems. For pre-service and in-service middle school teachers.   |         |          |  |             |
| <b>SOCIOLOGY</b>                             |      |   |  |         |          |  |             |
|  |      |   |  |         |          | Elizabeth Deliyiski?                     |             |
| SOCY   | 309  | An Introduction to Social Inequity (3)  | A sociological analysis of the distribution of wealth and income in selected societies.  | pending | related  |  |             |
| SOCY   | 310  | Social Demography (3)   | Selected theoretical orientations, methodological procedures, and illustrative substantive data pertaining to population.  | pending | NO       |  |             |
|  |      |   | Relationships among and changes in populations, social organization,   |         |          |  |             |

|                                   |     |  |   |         |         |   |                             |  |
|-----------------------------------|-----|--|---|---------|---------|---|-----------------------------|--|
| SOCY                              | 311 | Ecology of Human Social Systems (3)  | technology, and the environment.  | pending | focused |   |                             |  |
| SOCY                              | 315 | World Population: Problems and Policies (3)  | World population growth and concomitant socioeconomic problems. Effectiveness of governmental policies concerned with population growth. Topics include over-population   | pending | related |   |                             |  |
| SOCY                              | 501 | Cities and Politics (3)  | The social forces, contemporary and historical, that form the present urban political system.   | pending | NO      |   |                             |  |
| SOCY                              | 514 | Urbanization (3)   | Analysis of urbanization using contemporary and historical data from developing societies. The demographic components of metropolitan growth and the changing structure of metropolitan communities.  | pending | NO      |   |                             |  |
| SOCY                              | 550 | Sociology of Science (3)   | Interrelationships among society, culture, and contemporary science.  | pending | NO      |   |                             |  |
| SOCY                              | 745 | Human Ecology and Urbanization (3)   | Classical and contemporary theories of human ecology, cities, and urban life treated at urban, regional, national and international levels.   | pending | related |   |                             |  |
| <b>SOCIAL WORK</b>                |     |  |   |         |         |   |                             |  |
| SOWK                              | 341 | Human Behavior and Social Environment I (HBSE): Individual Development Across the Life Span. (3) | Analysis of the process and functions of persuasive communication (analysis of public speaking).  |         | related | susan parlier                               | fall                        |  |
| SOWK                              | 342 | Human Behavior and Social Environment I (HBSE): Individual Development Across the Life Span. (3) | Family development and human behavior within the context of intimate social systems and the larger cultural and sociological contexts.  |         | related | susan parlier                               | spring                      |  |
| SOWK                              | 422 | Advocacy for Social and Economic Justice (3)   | Knowledge and skills embedded in values of social and economic justice for all people across systems of all sizes that are essential in generalist practice.  |         | related | susan parlier                               | spring                      |  |
| SOWK                              | 441 | Human Behavior and the Social Environment (HBSE) III: Large Systems (3)                          | Examining how individuals and families are affected by, and affect, larger social systems.  |         | related | susan parlier                               | fall                        |  |
| <b>STATISTICS</b>                 |     |  |   |         |         |   |                             |  |
| STAT                              | 528 | Environmental Statistics (3)   | Statistical analysis of environmental data. Review of multiple regression and ANOVA, nonlinear regression models and generalized linear models, analyses for temporally and spatially correlated data, and methods of environmental sampling. |         | focused | Don Edwards                                 |                             |  |
| STAT                              | 708 | Environmetrics I (=BIOS 808)   | Statistical methods for environmental and ecological sciences, including nonlinear regression, generalized linear models, spatial analyses/ kriging, temporal analyses, meta-analysis, quantitative risk assessment.                          |         | focused | Don Edwards                                 |                             |  |
| STAT                              | 709 | Environmetrics II (=BIOS 809)  | Theoretical underpinnings of environmetrics. Spatial statistics, temporal and longitudinal analysis, hierarchical modeling, and Bayesian inferences for environmental data.   |         | focused | Don Edwards                                 |                             |  |
| <b>STEM</b>                       |     |  |   |         |         |   |                             |  |
| STEM                              | 101 | Concepts and Connections: An Introduction to Science, Technology, Engineering, and Mathematics   | This course introduces concepts, connections, and evolving relationships among the sciences engineering and mathematics to strengthen understanding of current ideas and applications of advancing technologies.                              |         |         | Loren Knapp knapp-loren@sc.edu 803-777-2505 | spring 10 fall 10 spring 11 |  |
| <b>WOMEN'S AND GENDER STUDIES</b> |     |  |   |         |         |   |                             |  |
| WGST                              | 535 | Ecofeminism (3)  | An exploration of the connections between oppression of women and oppression of nature.   | pending | pending | burke                                       |                             |  |