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| Not-for-Profit and Governmental Accounting | Accounting | UG | Examinations of accounting, financial reporting, and budgeting for state and local governments, the federal government, and not-for-profit entities. |
| Cultural Geography | Anthropology and Geology | UG | An introductory course in human or cultural geography. Topics include geographical concepts and factors; systemic and regional approaches; geographic tools and techniques, stressing spatial interactions; reciprocal relations between peoples and geographical environments; geographical graphics; major earth regions and their interrelations. |
| Introductions to Human Evolution | Anthropology | UG | An introduction to the study of humans as biological organisms. Emphasis on evolutionary theory and natural selection as driving forces in human evolutionary history.  |
| Introduction to Biological Anthropology | Anthropology | UG | A survey of the sub-field of biological anthropology, including anthropological genetics, primatology, paleoanthropology, human ecology, and bioarchaeology.  |
| Cultural Anthropology in the Global Context | Anthropology | UG | An introduction to global cultures with emphasis on socio-economic arrangements, religious beliefs, and responses of indigenous groups to modernization.  |
| Science, Society and Culture | Anthropology | UG | Anthropological perspectives on controversial issues in the history of scientific though as conveyed through original texts, popular films, and cultural critique.  |
| Environmental and Human Behavior | Anthropology and Environmental Studies | UG | Interrelationships between cultural and ecological systems, with focus on food production, economic change, and religious beliefs. |
| Anthropological Theory | Anthropology | UG | Theoretical approaches to modern-day anthropology, with emphasis on political economy, Marxism, hermeneutics, ecology, and feminism. |
| Economic Anthropology | Anthropology | UG | Traditional food production systems worldwide are compared to patterns in modern capitalist societies. |
| World Food Problems | Anthropology and Environmental Studies | UG | A semiar approach with emphasis on the various causes of malnutrition including the ecological basis for food production, the impact of economics and politics on food production and distribution, and the consequences of malnutrition.  |
| Climate Anthropology | Anthropology | UG | An introduction to the causes and effects of climate change as it relates to people and power, ethics and morals, environmental costs and justice, and cultural and spiritual survival. |
| Epidemiology | Anthropology | UG | Epidemiological concepts and skills pertinent to the understanding of diseases. Assessment of cultural, ecological, environmental, occupational, and behavioral factors. |
| Environmental Archaeology | Anthropology, Environmental Studies, and Archaeology | UG | Distributional patterns of archaeological sites within specific environment. Archaeological/environmental field work in Texas, with respect to recent conservation laws protecting nonrenewable archaeological resources. |
| Futuristics | Anthropology and Environmental Studies  | UG | Biological and cultural forces that will likely shape humankind’s future. Emphasis on trends in demography, globalization, science, and technology. |
| Aerodynamics | Aviation Sciences | UG | Aircraft types, theory of flight, aerodynamics of the airplane, aircraft performance, effects of atmospheric conditions on performance, theory of aircraft stability and control, effects of flight loads on aircraft structure. |
| Air Pollution Sampling and Testing | Aviation Sciences | UG | Air pollution characterization and movement, principles and operation of pollution measuring instruments, air sampling techniques both at ground level and using instrumented aircraft, an interpretation and analysis of the data obtained.  |
| Aviation Fuels | Aviation Sciences | UG | General overview of fuels, combustion processes including energy release and maximum flame temperature calculations, fuels specific to aviation-sources, properties, manufacture, and distribution. Alternative fuels for aviation-sources, properties, manufacture, distribution, pollution and other ecological issues, and safety issues.  |
| The Natural World I: Primary Ideas in Science | Baylor Interdisciplinary Core | UG | The first course of a two-semester sequence encompassing lecture and laboratory experiences that emphasize the foundations of natural science, science as a way of knowing, and the uses of science. Historical influences on the development of science and the interrelationship between science and culture will be explored. Lecture and laboratory material in The Natural World will be integrated. Laboratories will involve hands-on, discovery-based learning which will lead the student to make connections between observation and interpretation of natural phenomena through critical thinking and will seek to provide students with an understanding of the scientific method, hypothesis formation and testing, collection of data, analysis of data, and interpretation of data in the context of hypothesis.  |
| Current Issues in Human Biology | Biology | UG | An introductory course for non-biology majors examining biological issues in the current media, focusing primarily on the human subject. |
| Exploring the Living World | Biology | UG | Ecological issues in the media, including ecosystems and biodiversity. For non-majors. |
| Investigations of Modern Biology Concepts I | Biology | UG | An introductory course in biological concepts with emphasis on cell biology, metabolism, and genetics. Students will work in small groups on inquiry-based projects in the area of microbiology, genetics, molecular biology, and genomics.  |
| Investigations of Modern Biology Concepts II | Biology | UG | Introduction to biological concepts with emphasis on morphology, general physiology, evolution, and ecology. Includes field trips and small-group, hypothesis-based projects that will require outside class time. |
| Ecology Laboratory | Biology | UG | Field and laboratory experiences in ecological investigations. |
| Ecology | Biology | UG | Lectures and discussions that illustrate the basic concepts in evolutionary, behavioral population, community, ecosystem, and conservation ecology.  |
| Climate Change Biology | Biology | UG | Biological and conservation responses to human-induced climate change, emphasizing the climate system, past climate influences, range shifts, phenological changes, extinction, predictive modeling connectivity and landscape management, reduction of greenhouse gas emissions, and extinction risk from climate change solutions. |
| Biogeography | Biology | UG | Patterns of geographic distributions of animals and plants, and the physical and biological factors, and the processes affecting geographic distributions.  |
| Limnology | Biology | UG | Lecture, laboratory, and field studies of lakes and streams. Emphasis on analysis and interpretation of physical, chemical and biological factors relating to metabolism and production of aquatic communities. Overnight trips might be required. |
| Aquatic Biology | Biology | UG | Laboratory and field studies of lakes, streams, and estuaries. Primarily for advanced students of zoology and botany who are interested in aquatic organisms and their ecology. Emphasis is on collection, preservation and identification of all aquatic biota except fishes. Overnight trips may be required. |
| Taxonomy of Flowering Plans | Biology | UG | Laboratory and field studies by the use of a dichotomous key emphasizing flowering plants of the Central Texas area as topics of study, and recognition of the major families of vascular plants. Lecture emphasis is on current problems in plant taxonomy and systematics. |
| Plant Anatomy | Biology | UG | Anatomy of seed plants, with emphasis on structure-function relationships that occur during growth and development. |
| Plant Physiology | Biology | UG | Experimental studies of important physical and chemical processes related to plant function. |
| Biology of Wetland and Aquatic Vascular Plants | Biology | UG | Taxonomy, ecology, structure, distribution, and economic significance of aquatic vascular plants. |
| Ichthyology | Biology | UG | Fish fauna of the area with emphasis on morphology, ecology, economics, and systematics. Overnight trips may be required. |
| Ornithology | Biology | UG | Evolution, morphology, physiology, behavior, reproduction, ecology, geography, and migration of birds of the world. Includes fields identification of Central Texas species. |
| Biology Field Studies | Biology | UG | Organisms, environments, and methods of field study.  |
| Christian Ethics Applied to Business | Business | UG | A study of how business decisions and actions incorporate ethical issues. Individuals, organizations, economic/political systems and societies are influenced in significant ways by the ethical principles they use when shaping decisions about how to conduct business. The course examines, from a Christian perspective, the ethical foundations, responsibilities, and consequences of business practices in our society. Study includes the use of case studies illustrating the application of ethical theory in situations that students will likely encounter in their careers. |
| Introduction to Citizenship and Community Service | Civic Education and Community Service | UG | Volunteerism and community service as related to poverty, literacy, local political participation, mentoring, peer education, community law enforcement, gender, and neighborhood development. In addition to one weekly classroom hour, a minimum of two hours per week of community service is required. May be repeated a maximum of four times with a different topic each time. |
| Leadership and Social Change | Civic Education and Community Service | UG | Theory and practice of leading groups toward positive social change, emphasizing issues such as poverty, public education, and systemic inequality. A minimum of sixty hours of public service outside of class required. |
| Citizenship, Community, and Service Learning | Civic Education and Community Service | UG | Intensive integration of academic study with service learning opportunities in the community. Course emphasis will vary by semester. Seminar discussions, readings, and personal reflection will enrich the community volunteer experience. A minimum of three hours per week of community service is required.  |
| Religion and Society | Religion and Sociology | UG | Historical and contemporary issues concerning the complex relationship of religion and society; and religion’s propensity to alternately legitimate the status quo and promote social change.  |
| Economics of Labor | Economics | UG | Neoclassical approach to labor market analysis. Special attention is paid to the study of labor market phenomena from a microeconomic perspective, including the theory of wage rate determination, the concept of investment in human capital, the problems of race and sex discrimination, unemployment, and the impact of unionization on the structure of wages. Upon completion of this course a student will have a general working knowledge of the state of the art in labor market analysis and research.  |
| Introduction to the Economics of Poverty and Discrimination | Economics and Sociology  | UG | This course develops and applies basic economic concepts to questions of poverty, inequality, and discrimination in the United States, and to global poverty issues. Special attention will be paid to the contribution economic principles can make to understanding family structure, participation in the labor force, and gender and racial discrimination. Attention will also be paid to evaluating public policies designed to ameliorate poverty and discrimination, including social insurance, welfare programs, minimum and living wage laws, and equal opportunity policies.  |
| Economics of Poverty and Discrimination | Economics and Sociology | UG | Market and non-market issues in income determination. Emphasis on the supply and demand model and its application to the analysis of poverty and the poverty population. The effects of labor incomes and demographic and institutional factors of living standards, achievements, and shortcomings of income maintenance (welfare), equal opportunity and employment programs will be analyzed. |
| Solar Engineering | Electrical and Computer Engineering | UG | A first course in the principles of solar energy collection, conversion and storage. Topics include solar photovoltaic and thermal collectors, sun-earth geometry, ground and sky radiation models, and balance-of-system components including stratified tanks, pumps, and power inverters.  |
| Technologies for Developing Countries | Engineering | UG | Survey of the technologies that impact the socio-economic group known as the bottom of the pyramid. The course will focus on two broad classes of the technologies, water and energy, and will include the application of renewable energy sources such as solar, wind, and hydro power in the developing world. Engineering Design as a decision-making technique, including economic decisions based on present worth, will be explored.  |
| Social and Ethical Issues in Engineering | Engineering | UG | Study of the relationship between engineering, technology, and society. Topics include philosophical perspectives on engineering and technology, technological values, impact of technological change, social and ethical responsibilities of engineers, and public technology policy. Christian responses to these issues will be explored. |
| Ethics of International Service | Engineering | UG | Study of ethical considerations for professionals working in the developing countries, especially those associated with the implementation of technology-oriented or enterprise-oriented development interventions. Topics include the nature and causes of poverty, international development, issues of justice, the influence of culture, the importance of community, humanitarian engineering, microfinance and entrepreneurial solutions to poverty, and preparing for a career in international service. Current theories of development from secular and Christian viewpoints will be explored. |
| Elements of Nuclear Engineering | Engineering | UG | Survey of nuclear engineering concepts and application. Nuclear reactions; radioactivity; radiation interactions with matter; reactor physics; risk and dose assessment; applications in medicine; industry, agriculture and research. |
| Thinking, Writing, and Research | Writing Programs | UG | A course designed to teach students to gather and evaluate information from a variety of sources and to incorporate ideas from these sources into the writing of a research paper. In addition the course explores the techniques of persuasive and critical writing. |
| Entrepreneurship: Living and Learning | Entrepreneurship | UG | The ENT-LLC cohort class is designed around action planning for creative ideas. The format will vary depending on the specific ideas and the arenas into which they fit , and may look like a formal business plan. Students will conceive, design and conduct a final project to incorporate leadership and service to the Baylor or surrounding community. Students will be exposed to creative and innovative thinking and be more able to approach their future careers with an entrepreneurial attitude and desire to give back to the community.  |
| An Introduction to Environmental Analysis  | Environmental Studies | UG | Methods of collection, analysis, and interpretation of environmental data as used in the social, behavioral, physical and biological disciplines. |
| Wildlife Ecology Laboratory Exercise | Environmental Studies | UG | Laboratory experience in basic ecological methodologies, including interpreting elementary graphic and statistical information, gathering population and habitat data, and understanding how science might be used to solve practical environmental problems. |
| Exploring Environmental Issues | Environmental Studies | UG | A survey of the fundamental physical, biological, and social forces affecting the solution of environmental problems. Principles of environmental history, political science, economics, biology, geology, physics, anthropology, and related disciplines. |
| Wildlife Ecology | Environmental Studies | UG | Introduction to wildlife identification, populations, life histories, behavior and habitats and the role of wildlife in ecological communities and ecosystems. |
| Freshman Environmental Seminar | Environmental Studies | UG | Introduces first-year students to significant topics in environmental studies. Emphasizes critical inquiry and thinking, research, scholarly communication, and problem-solving. Does not apply on the laboratory science requirement. |
| Introduction to Environmental Sustainability | Environmental Studies | UG | This course will introduce students to the major tenets of sustainability and will explore the real world application of sustainable practices on a local, national, and global scale. Topics will demonstrate interrelationships of various tools and approaches for sustainable development. Mastery of the materials from this course will prepare students to make positive changes on campus and beyond. |
| Ecology for a Changing World  | Environmental Studies | UG | The principles of ecology, emphasizing the effects of human activities on individuals, populations, communities and large-scale ecological systems. |
| Environment and Society | Environmental Studies | UG | Introduction to ethical, historical, and social science analysis of environmental issues, such as climate change, loss of biodiversity, water pollution, and urbanization. Emphasis on case histories and human dimensions of environmental problem solving. |
| Environmental Health Seminar | Environmental Studies | UG | Seminars by faculty and visiting speakers on topics in environmental health science. May be repeated once, with different content. Major paper required. |
| Seminar on Environmental Topics | Environmental Studies | UG | Seminars by faculty and visiting speakers on various topics in environmental studies. May be repeated once, with different content. |
| Conserving Biodiversity (Lab) | Environmental Studies | UG | Laboratory and field sampling methods for determining species diversity, minimum viable population size, and impacts of human disturbance on species survival. |
| Marine Environments Laboratory | Environmental Studies | UG | Study of specimens and fi eld surveys of major taxa of marine organisms; visits to typical marine and estuarine habitats. Overnight field trips required. |
| Analytical Analysis of Water Quality | Environmental Studies | UG | This course provides instruction relating to the delineation of watersheds by the use of topographical maps and aerial photographs, and the use of scientific methodology to estimate quantitative values for contaminant levels. |
| Wildlife Management Methods | Environmental Studies | UG | Laboratory techniques used in wildlife management, abundance estimates, management of habitats, and resolving current issues in wildlife management. Studies of game, non-game, endangered, and exotic species. |
| Environmental Chemistry Laboratory | Environmental Studies | UG | Introduction to experimental, field sampling, and analytical methods in environmental chemistry. Emphasis on field detection of both organic and inorganic compounds in soil, water, and air via spectrometric, chromatographic, and fluorometric instrumentation. |
| Laboratory Methods in Environmental Assessment and Monitoring | Environmental Studies | UG | Lab expands upon concepts learned in ENV 3210 by providing techniques that determine biological responses to stressors. |
| Field Techniques for Environmental Studies | Environmental Studies | UG | Environmental sampling methods and sample processing; data collection and analysis, and biological indexing. Course provides hands-on experience in performing Texas Commission for Environmental Quality sampling techniques for air, water, sediments, and biota, with emphasis on aquatic systems. |
| Air Quality and Monitoring Laboratory | Environmental Studies | UG | An introduction to laboratory, fi eld sampling, and data analysis techniques used in air quality monitoring. Topics will include measurement and analysis of pollutants such as ozone, particulate matter, and sulfur dioxide, and basic modeling. |
| Team Research in Environmental Studies | Environmental Studies | UG | Students will participate in a team research project under the supervision of a Baylor faculty member. Students will be expected to attend one hour of lecture and to complete a minimum of six hours of field or laboratory work a week. May be repeated once under different topic. |
| Directed Reading in Environmental Studies | Environmental Studies | UG | Critical reading in environmental studies. Student-led discussion and evaluation. May be repeated with a change of topic for a maximum total credit of six semester hours. |
| Conserving Biodiversity | Environmental Studies | UG | Introduction to causes of species and habitat loss. Application of ecological and genetic concepts to conservation and restoration of animal and plant species. |
| Marine Environments and Biodiversity | Environmental Studies | UG | Introduction to marine life forms, ecological adaptations, habitats, and critical issues in conserving marine biodiversity. |
| Introduction to Environmental Health | Environmental Studies | UG | Study of environmental hazards to the health of humans and other vertebrates, including pollution, radiation, wastes, urbanization, and climate change. Topics include epidemiology, risk assessment, infectious diseases, emerging contaminants, and regulation. |
| Introduction to Air Quality | Environmental Studies | UG | Introduction to atmospheric chemistry, and transport and deposition of air pollutants. Topics include major sources of pollution, climate change, atmospheric regulation, and impacts on human health. |
| Watershed Assessment | Environmental Studies | UG | An introduction to the scientifi c tools and methodology by which watersheds may be delineated and assessed with respect to point and non-point pollution. This course will deal primarily with surface waters. |
| Principles of Wildlife Management | Environmental Studies | UG | Introduction to techniques used in wildlife management including population estimation, forage evaluation, and habitat mapping. Investigation of the natural history and management strategies for a variety of game, non-game, endangered, and exotic species. |
| Managing Environmental Health and Safety | Environmental Studies | UG | Anticipation, recognition, evaluation, and control of chemical, radiological, biological, and physical hazards in the workplace and in environmental contexts. |
| Environmental Chemistry | Environmental Studies | UG | An introduction to the chemistry of soil, water, and air, and the sources, fate, and transport of environmental pollutants. Topics include applications of chemistry to remediation and waste minimization. |
| Individual Research Problems | Environmental Studies | UG | A research project conducted under the supervision of a Baylor faculty member in Environmental Science, a supporting department, or a pre-approved off-campus laboratory or field station. Three hours of laboratory or field work per week will be required during fall or spring semester, or fifty hours total during the summer, for each semester hour of credit. This course may be repeated for up to six semester hours of credit. |
| Environmental Sustainability Internship | Environmental Studies | UG | Campus or community internship to develop leadership in environmental sustainability. |
| Seminar on Environmental Topics | Environmental Studies | UG | Seminars by faculty, students and visiting speakers. Each student will prepare and present one thirty to forty-five minute seminar. May be repeated once, with different content. |
| Fundamental of Ecotoxicology Laboratory | Environmental Studies | UG | Field and laboratory techniques critical to gathering information on environmental stressors and responses of organisms to them. |
| Senior Thesis I | Environmental Studies | UG | Student selects an environmental problem for independent research project. After approval by thesis adviser, literature search is conducted and bibliography for the thesis is completed. |
| Field Laboratory Tests | Environmental Studies | UG | Field and bench tests of chemically contaminated water and soil, using portable test kits, with simple bench tests of selected remediation methods such as ion-exchange, precipitation, and membrane separations. |
| Senior Thesis II | Environmental Studies | UG | Preparation of information and data analysis in appropriate thesis form. |
| Environmental Capstone | Environmental Studies | UG | Advanced seminar integrating principles of environmental science, social science, and policy to solve environmental problems. Assignments and subject matter may differ depending on the topic being evaluated and the instructor of record. |
| Team Problem Solving in Environmental Studies | Environmental Studies | UG | Students will contribute the skills of their specializations to analyze and to suggest a solution to a current environmental problem. May be repeated once with a change of content. |
| Aquatic Chemistry | Environmental Studies | UG | Concepts and issues in aquatic chemistry, including chemical equilibria of natural waters and anthropogenic impacts. Required field trips. |
| Environmental Law | Environmental Studies and Political Science | UG | Fundamentals of environmental protection laws in the United States, including the evolution of environmental law in the areas of case law, common law, and administrative law. Topics include air and water quality, toxic and hazardous substances, endangered species, and wetlands and coastal management issues. |
| Air Quality Regulation | Environmental Studies | UG | Reviews history and policy of United States, transboundary, and global air pollution and resulting environmental regulations. |
| World Food Problems | Environmental Studies and Anthropology | UG | A seminar approach with emphasis on the various causes of malnutrition including the ecological basis for food production, the impact of economics and politics on food production and distribution, and the consequences of malnutrition. |
| Agricultural Ecology | Environmental Studies | UG | Application of ecological principles to sustainable agricultural management. Emphasis on Texas and the tropics. Required weekend field trips. |
| Research Methods | Environmental Studies | UG | Research design and methods. Students produce a comprehensive research proposal in their major field(s) of study. |
| The Environment and Economic Analysis | Environmental Studies, Aviation Sciences and Economics | UG | Economic analysis in description, analysis, and policy formulation of environmental problems such as natural resource development, ecology, energy needs, noise, water, and air pollution. Economic tools used will include social welfare analysis, externalities, and benefit cost analysis. |
| Human Health Risk Assessment | Environmental Studies | UG | Concepts, data sources, and methodologies used in the field of human risk assessment, including environmental hazard identification, dose-response assessment, exposure assessment, risk characterization, and risk communication. Required project utilizing professional risk assessment software. |
| Science Leadership: Community Environmental Research | Environmental Studies and Geology | UG | Development of science leadership skills through community-based research on environmental problems. |
| Coastal Zone Management | Environmental Studies | UG | Strategies for managing beaches, deltas, barrier islands and coastal seas, including issues in flood and storm risk, pollution mitigation, recreational development and fisheries exploitation. |
| Applied Environmental Impact Analysis | Environmental Studies | UG | Government regulations and increased citizen awareness relationship to the impact of plans and projects on the environment. The course includes an examination of major environmental legislation and its impact on decision making in the public sector. Legislative Acts pertinent to the development of Environmental Impact Analysis are studied. |
| Fundamentals of Toxicology | Environmental Studies and Biology | UG | Basic concepts of toxicology, including historical perspectives, the disposition and metabolism of toxic substances, pharmacokinetics, target organ toxicity, non-organ directed toxicity, toxic agents, industrial toxicology, forensic toxicology, environmental toxicology, toxicity testing techniques, and risk assessment. |
| Water Management | Environmental Studies and Geology | UG | Interdisciplinary field of water management. Scientific, technical, institutional, economic, legal, and political aspects of water management. |
| Pollution Abatement and Prevention Systems | Environmental Studies | UG | Analysis, design, and performance of pollution treatment and remediation methods. Emphasis on the practices of pollution prevention, green chemistry, and industrial ecology as more sustainable pollution reduction strategies. |
| Development and Indigenous Peoples | Environmental Studies and Anthropology | UG | With particular reference to indigenous peoples, this course examines the ethnographic context of Third World development and evaluates key issues that influence the development process. |
| Water Treatment | Environmental Studies | UG | Water use, treatment and disposal. Topics to be examined include the history of human use, resource access, water and wastewater treatment, disposal and re-use, anthropogenic impacts, regulations, current practices and theory in application of municipal, commercial and domestic treatment strategies. Activities include lecture, discussion, field trips, and student participation in the department’s On-Site Wastewater Testing Program. |
| Principles of Renewable Resource Management | Environmental Studies | UG | Theory, principles, and management of renewable resources to meet human needs. Field trips to management activities will be included. |
| The Environment and Energy | Environmental Studies | UG | Fundamental concepts of energy: the nature of energy flows and storage, potential and kinetic energy, energy loss and reversible and irreversible processes. Renewable and non-renewable energy sources and the impact of energy consumption on problems of societal sustainability. |
| Fundamentals of Ecotoxicology | Environmental Studies | UG | A survey of subjects critical to the study of contaminant impacts on the environment: principles of toxicology; use of toxicological information sources and data bases; ecological stressors and responses to better understand ecological risks. |
| Environmental Biodegradation and Bioremediation | Environmental Studies | UG | Principles of the biodegradation and possible bioremediation of organic chemicals in the soil environment. |
| Advanced Studies in Wilderness, Parks and Nature Reserves | Environmental Studies | UG | Topics in the management of national or state parks, nature reserves or wilderness areas, such as recreational impacts, disturbance ecology, or environmental interpretation. May be conducted as an off-campus field seminar. |
| Ecosystem Planning and Management | Environmental Studies | UG | Course utilizes ecosystem-based concepts and data to develop environmental management plans which also consider social variables, such as regulations, economic development, and community welfare. Students draft and present plans based on regional ecosystems. |
| Restoration Ecology | Environmental Studies and Biology | UG | Principles and practices for restoring natural systems that have been degraded or destroyed. Emphasis on re-establishment of soils, plants, and animals in terrestrial and aquatic environments. Legislative, political, industrial, and regulatory perspectives considered. |
| Chemical Investigation and Remediation | Environmental Studies | UG | Methods of site analysis, toxicology of chemical contamination, use of “chemical fingerprinting,” determination of exposure methods and exposure routes, analysis of epidemiological data, general methods for remediation of toxic and hazardous wastes, and use of both technical and moral considerations in decision making. |
| Internship in Environmental Education | Environmental Studies | UG | Participation as a teaching intern in the Baylor Econnections program for Waco schools or in an approved off-campus program. Students must engage in preparation and teaching a minimum of six hours a week. |
| Tropical Environments: Ecology and Sustainable Management | Environmental Studies | UG | Off-campus fi eld course exploring tropical ecosystems, such as rainforests and coral reefs. Investigation of past impacts of human cultures, and of sustainable practices for future environmental management. Topics may include agriculture, forestry, aquatic resources, energy production, and ecotourism. |
| Humans and Environmental Change | Environmental Studies | UG | Effect of human activity on landscape evolution through time, including impacts of agriculture, forest clearing, mining, soil erosion, invasive species, pollution, and transportation infrastructure. Assessment and documentation of environmental change. Required laboratory section and weekend field trips. |
| Applied Forest Ecology | Environmental Studies | UG | Ecological analysis of forest and woodland structure, energy and nutrient cycling, population dynamics and response to disturbance. Application of concepts to sustainable forest management. |
| Field School in Environmental Studies | Environmental Studies | UG | Application of the scientific method to the investigation and resolution of an environmental issue. |
| Special Topics in Field and Laboratory Methodologies | Environmental Studies | UG | A field experience centered on a region, ecosystem type, or environmental issue. Incorporates system-specific sampling methodologies. Requires off-campus field trips. May be repeated up to a total of three credit hours when content differs. |
| Problems | Environmental Studies | UG | Advanced interdisciplinary study of the environment. Subject and hours credit mutually agreed upon by student and directing professor(s) prior to registration. May be repeated for a maximum total credit of three semester hours. |
| Advanced Individual Research Problems | Environmental Studies | UG | A research project conducted under the supervision of a Baylor faculty member in Environmental Science, a supporting department, or a pre-approved off-campus laboratory or fi eld station. Students must participate in project design, data analysis, or reporting. Three hours of laboratory or field work per week will be required during fall or spring semester, or fifty hours total during the summer, for each semester hour of credit. This course may be repeated for up to six semester hours of credit. |
| Internship in Environmental Planning or Management | Environmental Studies | UG | An internship with the City of Waco, a federal or state agency, Christian or non-profit organization or with industry to acquire practical experience in environmental planning or management. The course may be repeated for up to three semester hours of credit. |
| Environmental Geology | Geology | UG | A study of the interaction between people and the geologic environment. Emphasis will be placed on catastrophic geologic processes, earth resources, pollution, and regional planning. |
| The Dynamic Earth | Geology | UG | Survey of processes that have shaped the earth, including mountain building, volcanism, deposition of sediments, and landscape development. Plate tectonics integrates all the above into a dynamic theory of the deformation of the earth. Weekly laboratory. |
| Earth Through Time | Geology | UG | The history of the earth and its inhabitants with emphasis on the processes and principles by which this history is determined. Field trips, including one Saturday, required. |
| Earth Science | Geology | UG | A descriptive survey of the earth sciences including astronomy, geology, meteorology, and oceanography. One Saturday field trip required. |
| Special Problems | Geology | UG | The current understanding of the earth as studied in a lab setting through group experimentation and projects. May be repeated with a change in content or topic. |
| Earth Materials | Geology | UG | A study of mineral and rock groups, their composition, properties, occurrence, and identification. Field trips and laboratory exercises included. Rock, mineral, and fossil collections are required. |
| Hydrologic Processes | Geology | UG | Theory and principles of hydrology and hydrogeology focusing on the physical processes: the hydrologic cycle, definitions, equations, streams, flooding, erosion, sedimentation and transport, aquifers, groundwater flow and well hydraulics. One or more local field trips required. |
| Field Geology | Geology | UG | Field experience in the American West. Includes extended field trip, oral and written reports, rock and mineral identification and interpretation, preparation of sample and slide collections, and design of field problems. Offered in the field during the summer session. |
| Evolutionary History of Plants | Geology | UG | The evolutionary history of plants as studied through the fossil record, including preservation, plant morphology and anatomy, and techniques used to reconstruct paleoenvironment and paleoecology. Weekly labs, with one weekend field trip. |
| Global Soil Systems | Geology | UG | Fundamentals of soil genesis, classification, geomorphology, ecosystems, and environmental interpretation. Includes the role of soil biogeochemical cycles in past, current, and future global change issues. |
| Natural Landscape Evaluation and Planning | Geology | UG | Recognition of natural features that affect human uses. Evaluation of natural landscapes on a scale from complete preservation to full development. Experience in urban landscapes. Includes one or more Saturday field trips. |
| Environmental Health | Health Education | UG | A course designed for the study of environmental health hazards such as air, water, solid wastes, noise pollution, radiation, pesticides, food additives, metallic menaces, substandard housing, urban environment, and population dynamics. The role of conservation and governmental agencies concerned with pollution control is included in the course. |
| The Environment and Political Processes | Public Law | UG | This course explores the causes, the magnitude, and the meaning of the Ecological Crisis and analyzes the way in which environmental problems translate into political issues. Attention is given to the political processes on varying public levels and to political actions that have or have not been taken, or might be taken, on matters relevant to social and physical environments. The purpose of the course is to develop a broad base for informed judgment and for constructive attitudes regarding the growing ecological dilemma confronting all societies. |
| Environmental Ethics | Religion | UG | Moral perspectives which inform and support environmental activity in our society. The primary focus will be on the various interpretations of how humanity is properly related to its environment and the consequences of these interpretations for the environmental action of individuals and social institutions. |
| Gender and Community | Civic Education and Community Service | UG | This course aims to foster the development of student-citizens with enhanced gender consciousness. Through selected readings, guest lectures, class discussions, class preparations, and especially volunteer work, students will develop knowledge and skills that will enable them to interpret and evaluate life experience with an enhanced concern for gender issues.  |

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| Poverty in Waco | Civic Education and Community Service | UG | Volunteerism and community service as related to poverty, literacy, local political participation, mentoring, peer education, community law enforcement, gender, and neighborhood development. In addition to one weekly classroom hour, a minimum of two hours per week of community service is required.   |
| Christian Social Action | Civic Education and Community Service | UG | Volunteerism and community service as related to poverty, literacy, local political participation, mentoring, peer education, community law enforcement, gender, and neighborhood development. In addition to one weekly classroom hour, a minimum of two hours per week of community service is required. |
| Citizenship & Community Service | Civic Education and Community Service |  | Volunteerism and community service as related to poverty, literacy, local political participation, mentoring, peer education, community law enforcement, gender, and neighborhood development. In addition to one weekly classroom hour, a minimum of two hours per week of community service is required. |
| Habitat for Humanity | Civic Education and Community Service |  | Volunteerism and community service as related to poverty, literacy, local political participation, mentoring, peer education, community law enforcement, gender, and neighborhood development. In addition to one weekly classroom hour, a minimum of two hours per week of community service is required. |
| Backpacking  |  Lifetime Fitness  | UG | A course designed to teach the values of wilderness experiences and the knowledge and skill necessary for enjoyable and safe basic wilderness living. Topics receiving emphasis include: safety, fitness, ecology, clothing, equipment, food preparation, emergency care, navigation and survival. |
| Human Trafficking  | Social Work  | UG/G | Human Trafficking is an upper level undergraduate and graduate level course designed to help students gain a better understanding of contemporary human trafficking and modern day slavery. During this course, you will learn important terminology in this field, the different types of human trafficking that exist and an understanding of the scope of the problem, both domestically and globally.  |
| Nutrition  | Family and Consumer Sciences  | UG | A study of elements in food essential for optimum health, quality diets, fad diets, and computer analysis of diets. |
| Introduction to Food Delivery Systems | Family and Consumer Sciences | UG | Introduction to meal service in the setting of the home, institutions, child care, and restaurants. Management of meal planning, preparation, and service. Emphasis on equipment usage and maintenance and time, money, and nutrient management |
| The Family: A Global Perspective | Child and Family studies  | UG | Families around the world: functions, roles, responsibilities, environmental influences, and interactions with other societal institutions. |

| Class Title  | Academic Department | Level | Description |
| --- | --- | --- | --- |
| Climate Anthropology |  | G | An introduction to the causes and effects of climate change as it relates to people and power, ethics and morals, environmental costs and justice, and cultural and spiritual survival. |
| Human Catastrophe and Cultural Response |  | G | Impact of major catastrophes on human society with emphasis on coping strategies and the utility of disaster theory to help in the recovery process. Issues include disaster, toxic disaster, famine, epidemic, war and natural oppression. |
| Environmental Archaeology |  | G | Distributional patterns of archaeological sites within specific environments. Archaeological/environmental field work in Texas, with respect to recent conservation laws protecting nonrenewable archaeological resources. |
| Environmental Ethics |  | G | Moral perspectives which inform and support environmental activity in our society. The primary focus will be on the various interpretations of how humanity is properly related to its environment and the consequences of these interpretations for the environmental action of individuals and social institutions |
| Geoarchaeology |  | G | Concepts and methods of the geosciences applied to solving archaeological problems. Emphasis on stratigraphy, soils, climate, dating techniques, site formation, and site preservation related to both New World and Old World archaeology. |
| Futuristics |  | G | Biological and cultural forces that will likely shape humankind’s future. Emphasis on trends in demography, globalization, science, and technology. |
| Archaeology of North America |  | G | An archaeological survey of human societies in the United States and Canada from their earliest appearance in the New World to the arrival of Europeans. One­ third of the course will focus on historical archaeology. |
| Applied Anthropology |  | G | An introduction to applied anthropology where major research components are identified and specific fields such as medical, nutritional, environmental anthropology, and Third World development are discussed. |
| Field School in Cultural Anthropology |  | G | Residence for five to six weeks in a selected area to observe and analyze social, economic, and environmental systems.  |
| Meteorology |  | G | Composition of the atmosphere, atmospheric processes, weather disturbances, and climate elements and controls. Emphasis is placed on climate classification and measurements of human inputs into the atmosphere.  |
| Taxonomy of Flowering Plants |  | G | Laboratory and field studies by the use of a dichotomous key emphasizing flowering plants of the Central Texas area as topics of study, and recognition of the major families of vascular plants. Lecture emphasis is on current problems in plant taxonomy and systematics.  |
| Plant Anatomy  |  | G | Anatomy of seed plants, with emphasis on structure-function relationships that occur during growth and development. |
| Plant Physiology  |  | G | Experimental studies of important physical and chemical processes related to plant function.  |
| Biology of Wetland and Aquatic Vascular Plants  |  | G | Taxonomy, ecology, structure, distribution, and economic significance of aquatic vascular plants.  |
| Biology of the Vertebrates  |  | G | An introduction to the biology of the vertebrates, emphasizing recognition and classification of modern taxa, adaptations to diverse lifestyles, and importance to humans in context of diseases, domestication and conservation.  |
| Ichthyology  |  | G | Fish fauna of the area with emphasis on morphology, ecology, economics, and systematics.  |
| The Environment and Economic Analysis  |  | G | Economic analysis in description, analysis, and policy formulation of environmental problems such as natural resource development, ecology, energy needs, noise, water, and air pollution. Economic tools used will include social welfare analysis, externalities, and benefit cost analysis. |
| Development of Biofuels in Aviation |  | G | Rationale for developing and using biofuels in aviation. History of the development of biofuels as aviation fuels. History of fossil fuels. International experience in aviation biofuels. Environmental, economic, and energy security factors. Technical considerations and testing procedures including FAA certification procedures. |
| Biogeography |  | G | Patterns of geographic distributions of animals and plants, and the physical and biological factors, and processes affecting geographic distributions.  |
| Aquatic Biology |  | G | Laboratory and field studies of lakes, streams, and estuaries. Primarily for advanced students of zoology and botany who are interested in aquatic organisms and their ecology. Emphasis is on collection, preservation, and identification of all aquatic biota except fishes. Overnight trips may be required.  |
| Biology of Wetland and Aquatic Vascular Plants |  | G | Taxonomy, ecology, structure, distribution, and economic significance of aquatic vascular plants. |
| Biology of the Vertebrates |  | G | An introduction to the biology of the vertebrates, emphasizing recognition and classification of modern taxa, adaptations to diverse lifestyles, and importance to humans in context of diseases, domestication and conservation. |
| Biology of Mammals |  | G | An introduction to the biology of mammals, emphasizing recognition and classification of modern taxa, adaptations to diverse lifestyles, and importance to humans in context of diseases, domestication and conservation. |
| Behavioral Ecology  |  | G | Relationships among animal behavior, ecology, and evolution. Emphasis is on integrating current models with comparative and experimental evidence on how a particular behavior pattern contributes to an animal’s chances of survival and its reproductive success. |
| Ornithology |  | G | Evolution, morphology, physiology, behavior, reproduction, ecology, geography, and migration of birds of the world. Includes field identification of Central Texas species. |
| Ecological Biophysics |  | G | First principle approaches that are used to describe microenvironments of living organisms and the energy and mass transfer between organisms and their external environment. |
| Conservation Biology |  | G | Biological forces influencing scarcity and diversity, emphasizing: genetics, fitness, population viability, extinction, endemism, habitat fragmentation, and community structure and stability.  |
| Ecosystem Process Modeling |  | G | Interactions among ecosystem elements are formalized in computer simulation. Identification of ecosystem sources/sinks, reservoirs, and flux pathways is presented with the biological interpretation of mathematical representation of ecological processes. |
| Biological Invasions: Ecology and Management |  | G | The biology of invasive alien plants and animals, emphasizing evolutionary ecology, impacts on native species, and effects on biodiversity. Biological invasion causes, pathways, vectors, and management strategies in terrestrial and aquatic systems. |
| Landscape Ecology |  | G | Ecological factors influencing landscape structure and dynamics. Emphasis on landscape structure, exchanges among landscape components, and landscape stability and management.  |
| Microbial Ecology |  | G |  Interactions and transformations of microorganisms in soil, air, and water. Emphasis on methodology and practical relationships of microorganisms in the environment. |
| Wetland Ecology and Management |  | G | Lecture, laboratory, and field studies of the ecology and management of North American wetland environments. Emphasis will be placed on the ecology of aquatic and wetland plants and their role in determining wetland structure and function. |
| Stream Ecology |  | G | Physical, chemical and biological organization of streams. Topics include geomorphology and hydrology, water chemistry, ecosystem processes in streams, watershed-stream linkages, and bioassessment methods. |
| Seminar in Ecology, Earth, and Environmental Sciences |  | G | Current topics and readings in earth system science. Variable topics depending on semester and instructor. |
| Team Problem Solving in Environmental Studies |  | G | Students will contribute the skills of their specializations to analyze and to suggest a solution to a current environmental problem. May be repeated once with a change of content. |
| Invertebrate Zoology  |  | G | Diversity and phylogenic development of all non-vertebrate phyla. Current areas of research in invertebrate biology are examined.  |
| Aquatic Chemistry |  | G | Concepts and issues in aquatic chemistry, including chemical equilibria of natural waters and anthropogenic impacts. Required field trips.  |
| Environmental Law (Cross-listed as PSC 4307) |  | G | Fundamentals of environmental protection laws in the United States, including the evolution of environmental law in the areas of case law, common law, and administrative law. Topics include air and water quality, toxic and hazardous substances, endangered species, and wetlands and coastal management issues. |
| Air Quality Regulation |  | G | Reviews history and policy of United States, transboundary, and global air pollution and resulting environmental regulations. |
| World Food Problems (Cross-listed as ANT 4311)  |  | G | A seminar approach with emphasis on the various causes of malnutrition including the ecological basis for food production, the impact of economics and politics on food production and distribution, and the consequences of malnutrition. |
| The Environment and Economic Analysis (Cross-listed AVS 4323/ECO 4323) |  | G | Economic analysis in description, analysis, and policy formulation of environmental problems such as natural resource development, ecology, energy needs, noise, water, and air pollution. Economic tools used will include social welfare analysis, externalities, and benefit cost analysis. |
| Human Health Risk Assessment |  | G | Concepts, data sources, and methodologies used in the field of human risk assessment, including environmental hazard identification, dose­response assessment, exposure, assessment, risk characterization, and risk communication. Required project utilizing professional risk assessment software. |
| Urban Political Processes (Cross-listed as PSC 4330) |  | G | Political institutions and processes in metropolitan areas, including social, economic, and governmental problems resulting from increased urbanization. |
| Coastal Zone Management |  | G | Strategies for managing beaches, deltas, barrier islands and coastal seas, including issues in flood and storm risk, pollution mitigation, recreational development and fisheries exploitation. |
| Applied Environmental Impact Analysis  |  | G | Government regulations and increased citizen awareness relationship to the impact of plans and projects on the environment. The course includes an examination of major environmental legislation and its impact on decision making in the public sector. Legislative Acts pertinent to the development of Environmental Impact Analysis are studied.  |
| Fundamentals of Toxicology (Cross-listed as BIO 4344) |  | G | Basic concepts of toxicology, including historical perspectives, the disposition and metabolism of toxic substances, pharmacokinetics, target organ toxicity, non-organ directed toxicity, toxic agents, industrial toxicology, forensic toxicology, environmental toxicology, toxicity testing techniques, and risk assessment. |
| Water Management (Cross-listed as GEO 4345) |  | G | Interdisciplinary field of water management. Scientific, technical, institutional, economic, legal, and political aspects of water management. |
| Principles of Renewable Resource Management  |  | G | Theory, principles, and management of renewable resources to meet human needs. Field trips to management activities will be included.  |
| The Environment and Energy |  | G | Fundamental concepts of energy: the nature of energy flows and storage, potential and kinetic energy, energy loss and reversible and irreversible processes. Renewable and non-renewable energy sources and the impact of energy consumption on problems of societal sustainability.  |
| Seminar in Anthropology  |  | G | Debate of current theoretical issues that reflect the continually changing nature of the discipline. Students will address all sides of a currently debated issue, drawing upon their studies in anthropology and related fields.  |
| Natural Landscape Evaluation and Planning (Cross-listed as GEO 4375) |  | G | Recognition of natural features that affect human uses. Evaluation of natural landscapes on a scale from complete preservation to full development. Experience in urban landscapes. Includes one or more Saturday field trips. |
| Advanced Studies in Wilderness, Parks, and Nature Reserves  |  | G | Topics in the management of national or state parks, nature reserves or wilderness areas, such as recreational impacts, disturbance ecology, or environmental interpretation. May be conducted as an off­ campus field seminar. |
| Integrative Ecophysiology |  | G | Application of the basic principles of nutrition to the study of fish, reptiles, birds, and mammals in their natural environments. |
| Restoration Ecology (Cross-listed as BIO 4381) |  | G | Principles and practices for restoring natural systems that have been degraded or destroyed. Emphasis on re-establishment of soils, plants, and animals in terrestrial and aquatic environments. Legislative, political, industrial, and regulatory perspectives considered.  |
| Tropical Environments: Ecology and Sustainable Management |  | G | Off­ campus field course exploring tropical ecosystems, such as rainforests and coral reefs. Investigation of past impacts of human cultures, and of sustainable practices for future environmental management. Topics may include agriculture, forestry, aquatic resources, energy production, and ecotourism. |
| Applied Forest Ecology  |  | G | Ecological analysis of forest and woodland structure, energy and nutrient cycling, population dynamics and response to disturbance. Application of concepts to sustainable forest management. |
| Advanced GIS Analysis  |  | G | Principles and techniques for geospatial data collection, manipulation, modeling, visualization, and analysis. Emphasis is placed on current raster modeling techniques, spatial statistical analysis methods, and using GIS as a predictive tool for environmental research. |
| Special Topics in Field and Laboratory Methodologies  |  | G | A field experience centered on a region, ecosystem type, or environmental issue. Incorporates system­ specific sampling methodologies. |
| Problems  |  | G | Advanced interdisciplinary study of the environment.  |
| Advanced In-Situ Instrumentation Techniques (Cross-listed as PHY 5155) |  | G | Computer modeling and instrument design and development of detectors for the in-situ measurement of physical and dynamic characteristics of dust in interplanetary space and planetary ring systems.  |
| Integrative Seminar in Environmental Studies  |  | G | An in-depth interdisciplinary examination of environmental practices in six areas: the ecosphere, human ecosystems, principles and practices in areas such as the ecosphere, human ecosystems, natural resources and pollution, environment and society, methodology, and emerging themes. |
| Foundations of Environmental Health Science (Cross-listed as HED 5302) |  | G | Overview of current topics in environmental health, including environmental toxicology and disease, food security and safety, risk assessment, air and water quality, waste management, emerging contaminants and diseases, public health concepts of emergency preparedness, environmental regulation, and mitigation of environmental risks. |
| Environmental Chemical Analysis |  | G | Analytic chemistry techniques used in environmental science including sampling, wet chemistry, chromatography, and spectroscopic methods. |
| Agricultural Ecology  |  | G | Ecological basis for food production in both temperate and tropical countries with emphasis on understanding the nature of the vulnerability of agriculture to environmental disturbance and on possible mechanisms to improve the stability and sustained productivity of improve the stability and sustained productivity of agricultural systems. |
| Research Design and Methods  |  | G | Research design and methods. Students produce a comprehensive research proposal in their major field(s) of study and submit for funding to appropriate agency or foundation. |
| Energy Economics (Cross-listed as ECO 5321) |  | G | Origins of the energy crisis; the effect of oil prices on inflation and the international monetary system; the origins and nature of OPEC; the economic feasibility of alternative energy sources, U.S energy policy alternatives; and other current issues in the field of energy economics. A portion of the course is devoted to examining the energy industry, in Texas and Southwest. |
| Conservation Biology (Cross-listed as BIO 5330) |  | G | Biological forces influencing scarcity and diversity, emphasizing: genetics, fitness, population viability, extinction, endemism, habitat fragmentation, and community structure and stability.  |
| Ecological Risk Assessment  |  | G | A thorough treatment of assessment procedures for quantifying hazardous effects of chemicals on the environment. Topics will include but are not limited to components of risk assessment paradigm, ecological risk assessment for contaminated sites, the precautionary principle, and other contemporary risk assessment issues. |
| The Environment and Third World Development  |  | G | This course introduces students to the field of environmental issues and Third World development with emphasis on sustainable development and ensured environmental security. |
| Biological Invasions: Ecology and Management (Cross-listed as BIO 5360) |  | G | The biology of invasive alien plants and animals, emphasizing evolutionary ecology, impacts on native species, and effects on biodiversity. Biological invasion causes, pathways, vectors, and management strategies in terrestrial and aquatic systems. |
| Integrated Energy Resource Systems (Cross-listed as AVS 5368)  |  | G | A seminar approach which examines various examples of integrated energy systems combining different renewable and conventional resources. |
| Advanced Environmental Toxicology and Chemistry  |  | G | Advanced principles of environmental toxicology, environmental fate of pollutants, and risk assessment. The course will focus on contemporary topics and methodology. |
| Advanced Environmental Biotechnology  |  | G | Special applications of biotechnology in the areas of degradation and remediation of environmental contaminants; environmental implications of genetic engineering. |
| Advanced Urban and Regional Comprehensive Environmental Planning |  | G | Seminar which examines the application of the principles and practices of comprehensive planning at the urban and regional levels emphasizing the implications of the natural environmental characteristics of an area while addressing the social, economic, and physical environmental needs of a community. |
| Ecosystem Management  |  | G | A seminar in the application of ecological principles to the management of terrestrial, freshwater and marine communities and ecosystems. An overview for students from all environmental specialties with an emphasis on case histories. |
| Advanced Environmental Chemistry  |  | G | Sources and implications of chemical pollution, cost/benefit analyses, chemical implications of alternative energy sources, waste minimization, recycling, and decontamination considerations. |
| Measurement Methods and Data Analysis for Air Pollution Research |  | G | Measurement methods, such as spectroscopy, and statistical analysis used to characterize the chemical and physical properties of air to determine pollution levels and air quality. |
| Atmospheric Chemistry and Physics (Cross-listed as AVS 5393)  |  | G | Chemistry and physics of the troposphere and stratosphere, including photochemistry, chemical kenetics, aerosol formation, micrometerology, atmospheric modeling, and other advanced topics. |
| Wetland Ecology and Management (Cross-listed as BIO 5404) |  | G | Lecture, laboratory, and field studies of the ecology and management of North American wetland environments. Emphasis will be placed on the ecology of aquatic and wetland plants and their role in determining wetland structure and function.  |
| Stream Ecology (Cross-listed as BIO 5405) |  | G | Physical, chemical and biological organization of streams. Topics include geomorphology and hydrology, water chemistry, ecosystem processes in streams, watershed-stream linkages, and bioassessment methods. |
| Advanced Ecological Data Analysis (Cross-listed as BIO 5413) |  | G | Current approaches to analyzing and interpreting complex ecological data, particularly multivariate techniques relevant to community ecology and environmental assessment. Emphasis on integrative analysis strategies using techniques not typically available in statistics departments. Hands-on computer analysis of data sets. |
| Molecular Ecology |  | G | Basic concepts and current laboratory techniques in molecular ecology. Emphasis is on use of these skills in addressing basic and advanced ecological questions. |
| Special Topics in Environmental Analysis |  | G | The course may be repeated depending on the combination of semester hours up to a maximum of six semester hours. |
| Graduate Environmental Practicum  |  | G | A practicum supervised by an environmental professional. May be salaried or volunteer. Requires one hundred fifty to one hundred sixty hours of work per semester hour. Students are required to complete three hours of ENV 5V90 for their degree requirements. |
| Global Aspects of Food and Nutrition |  | G | Nutritional issues in developing countries, including an analysis of factors contributing to food supply, nutritional status including malnutrition, effects of under-nutrition, and methods of assessing nutritional status and interventions. |
| Emerging Issues in Food and Nutrition |  | G | Readings, discussion, and analysis of one or more emerging trends and developments in nutrition and food sciences. |
| Meteorology (Cross-listed as AVS 4311 and GEO 4314)  |  | G | Composition of the atmosphere, atmospheric processes, weather disturbances, and climate elements and controls. Emphasis is placed on climate classification and measurements of human inputs into the atmosphere. |
| Geomorphology (Cross-listed as GEO 4340) |  | G | Development and modification of land­ surface forms by atmospheric, fluvial, glacial, mass-wasting, volcanic, and tectonic agents. Emphasis is placed on the spatial aspects of landscape evolution. |
| Introduction to Geographic Information Systems (Cross-listed as AVS 4485, ENV 4485, and GEO 4485) |  | G | The course covers the use of GIS to acquire primary geographic data, solve geographic problems, automate geographic analysis, and render explanations for geographic patterns and trends. Students will use the latest GIS software and data layers in a lab section. |
| Oceanography  |  | G | Physical, chemical, biological, and geological aspects of the oceans with special emphasis on the direct and indirect relationships of humans to the oceans. Such topics as mining the sea and its floor, farming the seas, and influence of the oceans on weather are included. Field trips and laboratory exercises.  |
| Sedimentary Petrology  |  | G | Microscopic and field characteristics of sedimentary rocks. Emphasis on interpretation of depositional and diagenetic environments and relationships between geometry of rock bodies and sedimentary processes. |
| Evolutionary History of Plants |  | G | The evolutionary history of plants as studied through the fossil record, including preservation, plant morphology and anatomy, and techniques used to reconstruct paleoenvironment and paleoecology. Weekly labs, with one weekend field trip. |
| Volcanology  |  | G | Analysis of volcanic ejecta. Mechanisms of lava and pyroclastic eruptions. Geomorphological analysis of volcanic land forms. History of volcanological studies and case studies of well known volcanoes. |
| Paleoecology |  | G | Relationship of fossil plants and animals to their physical and biological environment. Examination of principles of paleosynecology and paleoautecology; data gathering, analysis, and techniques of interpretation. |
| Advanced Marine Field Studies (Cross-listed as BIO 4339) |  | G | Field examination of marine environments. Individual research projects emphasize biology and geology of carbonate depositional regimes. |
| Introduction to Hydrology  |  | G | Basic applied techniques in surface and ground water hydrology. Surface water hydrology will incorporate analysis of precipitation records, runoff processes, and calculation of flood hazard. Ground water hydrology will emphasize hydrogeology techniques, including simple models of ground water movement. |
| Hydrogeology |  | G | Hydrogeology (ground water hydrology) for geologists and engineers. Topics to be covered include evaporation and precipitation, soil moisture, principles of ground water flow, regional ground water flow, geology of ground water occurrence, flow to wells, ground water chemistry, and ground water development and management.  |
| Geoarchaeology (Cross-listed as ANT 4348 and ARC 4348) |  | G | Concepts and methods of the geosciences applied to solving archaeological problems. Emphasis on stratigraphy, soils, climate, dating techniques, site formation, and site preservation related to both New World and Old World archaeology. |
| Wetlands (Cross-listed as ENV 4371) |  | G | Theory and application of the wetland concepts: classification, hydrology, biochemistry, soils, vegetation, construction, regulation, and delineation. |
| Global Soil Systems (Cross-listed as ENV 4374) |  | G | Fundamentals of soil genesis, classification, geomorphology, ecosystems, and environmental interpretation. Includes the role of soil biogeochemical cycles in past, current, and future global change issues.  |
| Natural Landscape Evaluation and Planning (Cross-listed as ENV 4375)  |  | G | Recognition of natural features that affect human uses. Evaluation of natural landscapes on a scale from complete preservation to full development. Experience in urban landscapes. Includes one or more Saturday field trips. |
| Remote Sensing (Cross-listed as AVS 4386, BIO 4386, ENV 4386, and GEOG 4386)  |  | G | Physical mechanisms of surface and atmospheric materials absorption, transmittance, reflection, and emittence of light measured by various remote sensing platforms. Survey various applications related to earth science, ecology, meteorology, and environmental science. |
| Quaternary Geology |  | G | An examination through morphologic, stratigraphic, and biogeochemical proxy data of the nature of earth environments, focusing on the three most important components: Quaternary stratigraphies, Quaternary chronologies, and Quaternary environmental proxies and their interpretation. |
| Introduction to Seismology |  | G | Theory of wave propagation in the Earth, earthquake mechanics, Earth structure, interpretation of seismograms, faults, seismotectonics, earthquake locations, magnitudes, and focal mechanisms. |
| Geophysical Exploration I  |  | G | Exploration geophysics, using gravity, magnetics, heat flow, telluric currents, resistivity, and other methods of remote sensing of hidden geological phenomena exclusive of seismic exploration. Laboratory work will emphasize geological interpretation of geophysical data. |
| Geophysical Exploration II  |  | G | Exploration geophysics, using latest seismic techniques and well-log analyses, with emphasis on petroleum exploration. |
| Engineering Geology  |  | G | Soil and rock mechanics. Analysis of geotechnical problems in the field and lab, report preparation, and computer evaluation of geotechnical problems.  |
| Petroleum Geology  |  | G | Origin, migration, and accumulation of petroleum. Exploration and production methods for hydrocarbon recovery. |
| Advanced Studies in Earth Science  |  | G | Special topics in earth science. May be repeated once with change of content. |
| Advanced Topics in Paleoclimatology |  | G | Special topics in paleoclimatology, including discussions of climate change events in earth history and methods for reconstructing ancient climates including paleoclimate proxies and general circulation models. May be repeated once with change of topic. |
| Clastic/Carbonate Depositional Systems  |  | G | Criteria for the recognition of clastic and carbonate depositional environments. |
|  Modern/Ancient Depositional Environments I  |  | G | Field study of depositional systems and facies. Course participants will examine modern depositional environments varying from fluvial, deltaic, beach, and near shore systems to modern barrier and fringing reefs along the Gulf and Atlantic coasts and in the Caribbean. |
| Modern/Ancient Depositional Environments II  |  | G | Field study of depositional systems and facies. Course participants will examine modern depositional environments varying from fluvial, deltaic, beach, and nearshore systems to modern barrier and fringing reefs along the Gulf and Atlantic coasts and in the Caribbean.  |
| Urban Geology  |  | G | Interrelationships between geological processes and urban development. Case histories and applied field projects will be examined in surrounding urban areas. |
| Earth System Science |  | G | The emphasis of this course is placed on climate changes and the associated environmental variations of different timescales and their forcing mechanisms (including human impacts). Defining the current climatic dynamics and predicting the future trends, based on the changing patterns of different timescales, are the concluding parts of this course. |
| Advanced Studies in Environmental-Urban Geology  |  | G | Special topics in environmental-urban geology. |
| Seismic Exploration  |  | G | Seismic refraction and reflection techniques and their application to petroleum exploration and to problems of shallow geologic structure. |
| Application of Geophysics to Environmental Engineering Problems |  | G | A field course in which seismic, gravity, magnetic, electrical, electromagnetic, well logging and ground penetrating radar techniques are used to solve problems associated with waste disposal, groundwater, and engineering characterizations. |
| Meanings, Culture, and Philosophy of American Landscapes |  | G | A critical approach to understanding the meanings, culture, and philosophies Americans ascribe to natural landscapes. Traditional perspectives including colonial American, romantic, and science-based conservation are characterized, as well as revisionist themes aligned with gender, cultural pluralism, and societal meanings of natural resource based protected areas. |
| Global Health |  | G | Overviews global health issues and the role of health education and public health worldwide. |
| Governmental and Non-Profit Accounting | Accounting | G | Examination of accounting, financial reporting, and budgeting for state and local governments, the Federal, and not-for-profit entities. |
| Air Pollution Sampling and Testing | Aviation Sciences | G | Air pollution characterization and movement, principles and operation of pollution measuring instruments, air sampling techniques both at ground level and using instrumented aircraft, an interpretation and analysis of the data obtained. For graduate credit, students will be assigned a project by the instructor in addition to the course work assigned to undergraduate students. |
| Aviation Fuels | Aviation Sciences | G | General overview of fuels, combustion processes including energy release and maximum flame temperature calculations, fuels specific to aviation-sources, properties, manufacture, and distribution. Alternative fuels for aviation-sources, properties, manufacture, distribution, pollution and other ecological issues, and safety issues. For graduate credit, students will be assigned a project. |
| Integrated Energy Resource Systems | Environmental Studies | G | A seminar approach which examines various examples of integrated energy systems combining different renewable and conventional resources. |
| Measurement Methods and Data Analysis for Air Pollution Research | Environmental Studies | G | Measurement methods, such as spectroscopy, and statistical analysis used to characterize the chemical and physical properties of air to determine pollution levels and air quality. |
| Atmospheric Chemistry and Physics | Environmental Studies | G | Chemistry and physics of the troposphere and stratosphere, including photochemistry, chemical kenetics, aerosol formation, micrometerology, atmospheric modeling, and other advanced topics. |
| Introduction to Bioinformatics and Systems Biology | Bioinformatics | G | A project-orientated approach to defining, understanding, and applying modern tools for genomic and systems biology analysis. Students will gain proficiency at sequence, microarray, and systems biology annotation by following a biological problem through each step of the analysis process. |
| Organizational Ethics | Business | G | This course will review major ethical theories, principles, decision-making methods, and the relationship between ethics and leadership. Clinical ethics topics will be considered from an organizational perspective, and topics with a more definitive business focus will be addressed |
| Management Communication | Business | G | Examines principles and strategies of effective management communication in the areas of audience analysis, ethics, cross-culture, crisis, interpersonal communication, and team dynamics. Provides techniques, skills, and strategies for overcoming communication barriers and for designing and delivering executive presentations. Provides instruction in preparing effective professional reports including research, drafting, revision, format, and documentation. Examines corporate and leadership communication topics including corporate responsibility, integrity and image, communicating with the media, change, principle-centered leadership, and web-based communication, with ample opportunities for application and feedback. |
| Studies in the Caribbean Region | Business | G | This course is conducted in the Dominican Republic as part of the Baylor in the Dominican Republic program, which allows graduate students to experience life in the Caribbean region first-hand. Students will study the social, cultural, historical, economic, and political issues that impact businesses in the Dominican Republic and the general environment in which they operate. Students will visit a variety of enterprises and consider the dynamics of participation in the economy and society of a Caribbean nation. |
| Project Management | Business | G | This graduate course in project management is designed to enhance the work of business professionals and persons involved in construction, environmental remediation, software development, grant writing, new product development, engineering, and design. Project management planning, network building, project control, reporting, and closing will be studied, including critical path and critical chain methodologies. Students will develop expertise in using Microsoft Project and critical chain computer software. This course introduces the tools and techniques necessary for successful and timely completion of projects in a single project environment. While briefly addressed, multi-project environments will not be covered in detail in this course. |
| Internship in Business | Business | G | Three to six months of work experience in a domestic or international company. The work experience should be integrated into students’ overall graduate program in such a way as to provide meaningful application of previously studied course material. A written report of the work experience shall be submitted to the director of the internship.  |
| Special Studies in Business | Business | G | Individualized research or project in business. Students’ proposals for special study project must be approved by the supervising faculty member. Offered on demand with instructor and departmental approval required for one to six semester hours. |
| International Business Law | Business Law | G | This course provides students with an introduction to the legal environment, issues, and controversies related to conducting business internationally; basic legal research; and logical legal reasoning. |
| Legal Aspects of Business | Business Law | G | This course provides a comprehensive overview of legal issues currently at the forefront of the increasingly complex body of laws challenging business managers. Students will be able to recognize legal issues and manage legal risks in business decision-making. The course will also acquaint students with the essential processes by which law is created and changed. Students will be challenged to increase their ethical sensitivity by exposing them to business-related legal problems that have ethical issues. |
| Legal Aspects of Management Decision | Business Law | G | Application of law to managerial decisions and the relationship between legal and business strategy examining the role of the courts; litigation and alternative dispute resolutions; fundamentals of contract, tort, and criminal law; government regulation of business; legal forms of business organizations; ethical considerations in business; international business transactions. |
| Special Studies in Business Law | Business Law | G | Individualized research in business law. Students’ proposal for special study project must be approved by the supervising faculty member. Offered on demand and by consent of the advisor for one to six semester hours. May be repeated under a different topic, but not to exceed six maximum degree hours. |
| International Human Rights | Church State Studies | G | The philosophy and implementation of human rights protection in the United States and abroad. |
| Religion, Politics and Society | Church State Studies | G | Analysis of religious change at the societal level with an emphasis on church-state relationships. |
| Accelerated Ventures: Launch  | Entrepreneurship  | UG | Accelerated Ventures is a two-semester program designed to provide an innovative educational experience for students. During the first semester, students enrolled in ENT 4321 create real companies, raise funds and generate sales. The second component teaches students how to grow and sustain that company.  |
| Accelerated Ventures: Growth | Entrepreneurship  | UG | Accelerated Ventures is a two-semester program designed to provide an innovative educational experience for students. During the first semester, students enrolled in ENT 4321 focus on learning the essentials of starting and building a company. The second component teaches students how to optimize online marketing techniques, understand options to finance firm growth, expand firm revenue and insure long-term sustainable growth.  |
| Fashion Theory and Consumer Behavior  | Family and Consumer Sciences  | UG | Contemporary apparel consumption behavior and its economic impact in view of social and psychological fashion theories.  |
| Apparel Technical Design and Product Development  | Family and Consumer Sciences  | UG | Creative design studio introducing professional construction techniques, product development, and techniques of sketching and creating ready-to-wear garments.  |
| Entrepreneurial Business Plan  | Entrepreneurship | UG | This class is a practicum in which the student will prepare a written business plan for an actual venture, business or nonprofit, which he/she plans to implement in the future. It will be very helpful if the student enters the course with the idea for this venture. Typed drafts of the plan and oral presentations of various sections will be submitted and presented during the course. Individuals from the business and/or nonprofit sectors will be involved in providing constructive criticism throughout the process.  |
| **Introduction to Food Science**  | Family and Consumer Sciences  | UG | Comprehensive study and experimental laboratory investigation of food constituents with a focus on chemical and physiochemical properties and reactions, including sensory evaluation, microbial safety, and food preservation.  |
| **Textile Science**  | Family and Consumer Sciences  | UG | The structure and performance of fabrics; examination of fibers, yarns, fabrication finishes and the processes used to enhance the aesthetics and functional aspects of the fabrics.  |
| **Nutrition**  | Family and Consumer Sciences  | UG | Scientific approach to the essential nutrients for human growth and development. Macronutrients, micronutrients, and human metabolism have detailed coverage; a computer diet analysis is conducted.  |
| **Child Development**  | Family and Consumer Sciences  | UG | Physical, intellectual, emotional, and social development from birth to middle childhood. One hour each week working with children in a community setting is required.  |
| **Apparel Quality Analysis**  | Family and Consumer Sciences  | UG | Study of factors which affect the wholesale cost, specification buying, and merchandise selection category  |
| **Nutritional Mechanisms and Metabolism**  | Family and Consumer Sciences  | UG | Properties and metabolism of nutrients with an emphasis on their interrelationships in health and disease.  |
| **Applied Undergraduate Research in Family and Consumer Sciences**  | Family and Consumer Sciences | UG | In-depth undergraduate research. This class is intended for application-oriented, individualized professor-supervised undergraduate research applications.  |
| **Introduction to Research in Family and Consumer Sciences**  | Family and Consumer Sciences  | UG | Research methods, experimental procedures, writing, and reporting data within the various areas of Family and Consumer Sciences. The format of the course includes a combination of lecture and discussion, writing assignments, literature review, and/or oral presentations.  |
| **Consumer Nutrition**  | Family and Consumer Sciences | UG | Survey of basic nutrition and current issues focusing on personal nutrient needs. Not open to nutrition sciences majors, minors or other students who have taken FCS 2351.  |
| **Child Health Programs**  | Family and Consumer Sciences | UG | Theory and community practice of current and proposed public health programs benefiting children. Course targets future child life specialists, dietitians, nurses, educators, social workers, and public health administrators.  |
| **Individual and Family Financial Management**  | Family and Consumer Sciences  | UG | Study of individual and family financial decisions, planning and management.  |
| **Nutrition Education**  | Family and Consumer Sciences | UG | Planning, implementing, and evaluating nutrition educational materials for use in individual counseling and small groups.  |
| **Family Life Education and Ethics**  | Family and Consumer Sciences  | UG | Historical, philosophical and theoretical foundations of Family Life Education (FLE); role of a FL educator, frameworks of FLE design, delivery and ethical guidelines.  |
| **Nutrition Practicum**  | Family and Consumer Sciences | UG | Supervised field experiences in nutrition education and program delivery. A minimum of one hour each week is required in a seminar setting. May be repeated for a maximum of 4 hours credit.  |
| **Textiles and Apparel in a Global Economy**  | Family and Consumer Sciences  | UG | A study of global textile and apparel industries including the effects and involvement of the global market on the production and merchandising of U.S. textiles and apparel.  |
| **Textile Testing and Analysis**  | Family and Consumer Sciences | UG | Standards, specifications and principles of testing applied to textile products. Theory and analysis of aesthetic, durability, comfort and functional performance of textiles. Application of research principles in testing and analysis of textile products  |
| **Life Cycle Nutrition**  | Family and Consumer Sciences  | UG | Nutritional needs of individuals as they progress through the life cycle from birth through aging, with consideration of concomitant problems.  |
| **Child and Family Policy and Advocacy**  | Family and Consumer Sciences | UG | Exploration of the reciprocal influences between children and families and all branches of government, including public/private sectors at local, state, and federal levels. Emphasis placed on models, skills, and approaches necessary to advocate for and influence policy.  |
| **Adult Development**  | Family and Consumer Sciences  | UG | Physical, intellectual, and social-emotional development in adulthood, the developmental tasks associated with adulthood, and adult learning principles.  |
| **Advanced Nutrition**  | Family and Consumer Sciences | UG | Nutrients and their roles in human health. Emphasis on trends in nutritional research.  |
| **World Geography**  | Geography  | UG | A description survey of the world’s major geographic provinces emphasizing the influence of environment and natural resources on human activity.  |
| **Physical Geography**  | Geography  | UG | Geographic and functional relationships within the physical environment: Earth-Sun relationships, weather, climate, soils, vegetation, and landforms. Weekly laboratory included.  |
| **Economic Geography**  | Geography | UG | A study of the effects of geography and resource availability on the pattern of world land use, population growth and migration, technological change, transportation system development, output growth, capital flows, and tariff policy. Not open to economics majors.  |
| **Population Geography**  | Geography | UG | Population patterns, emphasizing fertility, mortality, and migrations in various regions.  |
| **Meteorology**  | Geography | UG | Composition of the atmosphere, atmospheric processes, weather disturbances, and climate elements and controls. Emphasis is placed on climate classification and measurements of human inputs into the atmosphere.  |
| **Geomorphology**  | Geography | UG |  Development and modification of land-surface forms by atmospheric, fluvial, glacial, mass- wasting, volcanic, and tectonic agents. Emphasis is placed on the spatial aspects of landscape evolution.  |
| **Health and Human Behavior**  | Health Education  | UG | The intent of this class is to explore a variety of health issues pertinent to the following topics: stress, mental/emotional health, aging, death, human sexuality, chemical use, nutrition, exercise, chronic and degenerative diseases, and infectious diseases.  |
| **Consumer and Environmental Health Choices**  | Health Education  | UG | Current issues in consumer and environmental health. Special emphasis will be placed on the social, economic, political and environmental ramifications of decisions people make in their pursuit of health.  |
| **Nutrition**  | Health Education  | UG | A study of the fundamental, as well as relevant, current research and issues in nutrition in the United States and the world.  |
| **Global Heath**  | History | UG | Overviews global health issues and the role of health education and public health worldwide.  |
| **Reporting and Writing for Media**  | Journalism | UG | Information gathering and writing for the mass media.  |

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| **Advanced Reporting and Writing**  | Journalism  | UG | Experience in news gathering and writing with emphasis on relationships with professional news sources. Lariat laboratory included.  |
| **Global Supply Chain Management**  | Management | UG | Focuses on the principles and techniques used by managers to plan, schedule, control and evaluate the supply chain management strategies of world-class organizations. Good supply chain management practices will lead to a competitive advantage, while poor practices will hurt firm performance. Methodologies for supply chain analysis are developed and applied to topics such as designing the supply chain network, planning demand and supply, planning and managing inventories, and coordination and technology in the supply chains. Special attention is given to understanding facilities, inventory, transportation, and information as key drivers of supply chain performance.  |
| **Consumer Behavior**  | Marketing | UG | An interdisciplinary approach to the analysis and interpretation of consumer buying habits and motives and the resultant purchases of goods and services. The purchaser’s psychological, economic, and sociocultural actions and reactions are stressed as they relate to a better understanding of consumption.  |
| **Nonprofit Marketing**  | Marketing  | UG | Applies marketing concepts to objectives of nonprofit organizations. Special attention is paid to fund raising, promotion, and strategic planning in the arts, education, and social issues.  |
| **Nutrition**  | Health Education  | UG | A study of the fundamental, as well as relevant, current research and issues in nutrition in the United States and the world.  |
| **Strategic Brand Management**  | Marketing | UG | An advanced Marketing elective that addresses important branding decisions faced by an organization. The course provides the student with an increased understanding of the important issues in planning and evaluating branding strategies; the appropriate theories, models, and other tools to make better branding decisions; and a forum to apply these principles.  |
| **Environmental Issues and Their Impact on Health and Human Needs**  | Nursing | UG | A study of environmental issues and examination of their effect on human needs fulfillment. A review of the United States’ progress in improving the condition of its environment and the management of its natural resources is included.  |

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| **Introduction to Gender Studies**  | Sociology | UG | The impact of gender in the social world, emphasizing social and cultural forces, as well as the impact of biological factors shaping gender.  |
| **Persuasion and Communication**  | Speech Communications  | UG | A consideration of theoretical and practical aspects of persuasive communication, centering on a discussion of various findings by experimental researchers about the nature of the audiences and messages involved in the persuasive process.  |