UC Irvine

UCI Sustainability Course Inventory

2018

Prepared by UCI Office of Sustainability

Undergraduate Courses

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Bio Sci	Advanced Topics in Immunology			Literature-based, interactive discussions focused on review of seminal historic and recent immunology literature. Student responsibilities include reading, critical evaluation, and discussion of manuscripts.
Bio Sci	Animal Behavior		X	Explores why animals behave the way they do from evolutionary/mechanistic perspectives. Considers selective pressures and evolutionary constraints that shape animal behavior and the underlying neural and hormonal mechanisms by using examples such as why dogs bark, why some birds migrate.
Bio Sci	Biology and Chemistry of Food and Cooking		X	The kitchen is used as a laboratory to introduce fundamental principles of biology, chemistry, and physics. A molecular/cellular analysis of cooking, including concepts such as protein structure, browning reactions, colloids, emulsions, carbohydrate metabolism, and development of flavor/texture through biochemical transformations.
Bio Sci	Biology of Birds		X	A thorough introduction to the biology of birds, covering topics ranging from avian anatomy and physiology to behavior, natural history, ecology, genetics, evolution, systematics, and conservation. Examples from both local and global avifauna.
Bio Sci	Biology of Integrative Medecine		X	Presentation of biological principles and the latest clinical and basic research on complementary and alternative therapies (e.g., mind-body medicine, energy medicine, herbal medicine, acupuncture, manipulative therapies) and their integration with Western medicine. Lectures supplemented by demonstrations and hands-on learning sessions.
Bio Sci	Biology of Oriental Medicine		X	With lectures, demonstrations, and hands-on learning, the theory and practice of herbal medicine, acupuncture, qigong, and manipulative therapies are explained in Western biomedical terms. The latest basic and clinical research advances in each area are also described.
Bio Sci	Biotechnological Applications of Energy and Environmental Research		X	Covers microbiological and biochemical background related to current biotechnological applications, case studies of biotech-companies, and basic information related to patents and start-up companies. Topics include biofuel, bioremediation, agricultural, and environmental applications.
Bio Sci	Conservation Biology	X		Genetic and ecological issues in conservation biology, including effects of human population growth, the value of biodiversity, conservation genetics, demography, metapopulation dynamics, community and ecosystem processes, species invasions, global climate change, and reserve design and management.
Bio Sci	Developmental Biology			Cellular and molecular analysis of how a fertilized egg develops into an organism consisting of complex structures such as the eye, arms, and brain. Emphasis is on the key concepts of developmental processes underlying pattern formation, growth, and regeneration.
Bio Sci	Discussion and Literature Research in AIDS			Students carry out two activities: (1) leading discussions about HIV/AIDS (predominantly regarding sociological and personal reactions) among students taking the AIDS Fundamentals course and (2) literature research about biomedical aspects of AIDS.
Bio Sci	Diseases of the Twenty-First Century		X	Why do we get sick? An introduction to the biological basis of human disease, including diseases of the cardiovascular, respiratory, nervous, and reproductive systems. Case studies present diagnosis, treatment, and prevention protocols. Inheritable and infectious diseases also discussed.
Bio Sci	Ecology and Diversity of Insects		X	Insectsurepresenting two-thirds of all speciesuplay fundamental roles in human health, agriculture, and natural ecosystems. Topics include insect morphology, development, physiology, taxonomy, ecology, and insects in human affairs. Lecture includes interactive demonstrations and an optional weekend trip.
Bio Sci	Environmental Ethics		X	History of evolution of environmental ethics in America. Management problems in national parks, wilderness areas, wild and scenic rivers, national forests. Contemporary and historical aspects/contributors to the field. Mitigation, endangered species, habitat restoration, biodiversity, and environmental activism. Field trips required.
Bio Sci	Evolution		X	An integrative treatment of evolutionary biology that covers evolutionary processes, basic research methods, and the history of life.

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Bio Sci	Evolution and the Environment Laboratory		X	Explores basic topics in ecology and evolutionary biology and applications to agriculture, conservation, environmental issues, and public health. Format involves lab activities and discussion of scientific journal articles, with focus on learning to evaluate scientific evidence.
Bio Sci	Evolution Laboratory		X	Students perform experiments which illustrate important concepts in evolutionary biology such as natural selection, random genetic drift, inbreeding, age-specific selection, sexual selection, and phylogenetic reconstruction.
Bio Sci	Experimental Microbiology Laboratory		X	Introductory general microbiology designed for preprofessional biology majors. Includes microscopy, cultivation of bacteria, morphological and biochemical characterization of bacteria, microbial metabolism, growth and genetics, microorganisms and human disease, and interactions of microorganisms with the environment.
Bio Sci	Field Biology		X	Conducting group and independent studies in Southern California ecosystems, this course covers the fundamentals of experimental design, statistical analysis, communicating scientific findings (orally, visually, in writing), and other skills necessary for the scientific investigation of biological processes in the field.
Bio Sci	Field Freshwater Ecology		X	Analytical techniques for common water-quality variables of lakes, streams, rivers. Benthic fauna, vertebrates and invertebrates, algae, and aquatic plants. Emphasis on field methods with an experimental approach; laboratory exercises. Field trips to marshes, vernal pools, rivers and streams.
Bio Sci	From Organisms to Ecosystems		X	Patterns of diversity, ecology, and evolutionary biology. Emphasis is on the Tree of Life and how its members are distributed and interact.
Bio Sci	Global Change Biology	X		Field trips and lectures that address ways in which humans are altering the global environment, with consequences for the ecology of animals, plants, and microbes.
Bio Sci	Habitats and Organisms		X	Introduces students to local habitats and organisms through required field trips and applies ecological and evolutionary principles from BIO SCI E106. Students also explore related literature.
Bio Sci	Horticulture Science		X	Scientific principles of horticulture at the UCI Arboretum. Taxonomy, plant life history strategies; experiments with seed dormancy; morphological adaptations for specialized sexual and clonal reproduction; basics of plant propagation and ecological restoration.
Bio Sci	Human Biology I		X	Provides an in-depth look at cutting-edge topics in physiology and epidemiology as they relate to global issues of ethics, anthropology, and socioeconomics, providing the student with an understanding of human health beyond basic biological function.
Bio Sci	Infectious Disease Dynamics		X	Discusses how the dynamical interactions between pathogens and the immune system can give rise to a variety of outcomes which include clearance of infection, persistent infection, escape from immune responses, and pathology.
Bio Sci	Introduction to Ecology	X		Principles of ecology; application to populations, communities, ecosystems, and humans.
Bio Sci	Introduction to Insect Physiology		X	Physiology of insects. Insect respiration, digestion, excretion, and neurobiology, including sensory systems and effectors.
Bio Sci	Life Sciences		X	Designed to introduce nonmajors to the basic concepts of modern biology. Discussion of evolutionary biology, ecology, molecular biology, and genetics.
Bio Sci	Limnology and Freshwater Biology		X	Biology of freshwater environments: lakes, ponds, rivers, their biota, and the factors which influence distribution of organisms.
Bio Sci	Marine Biology		X	Examines the biotic and abiotic factors influencing the physiology, distribution, abundances, interactions, and evolution of marine organisms and the roles of those organisms in mediating ecosystem services and functions. A field trip is required.
Bio Sci	Mediterranean Ecosystems: Biodiversity and Conservation	X		Biodiversity, history of human impacts, and conservation efforts are examined in the five Mediterranean-type ecosystems. Remaining natural habitat, approaches to ecological habitat restoration, control of exotic species, and predicted consequences of global climate change are described. Field trip required.

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Bio Sci	Nutrition Science		X	An introduction to nutrition science, integrating concepts from biology, biochemistry, microbiology, physiology, and psychology to explain the interaction between nutrients and the human body. Biological basis of nutrient standards is analyzed. Effects of nutrition, behavior, exercises on health/disease.
Bio Sci	Physiology in Extreme Environments		X	An in-depth look at the physiological mechanisms that allow animals, including humans, to be physically active and survive in extreme environments. Physiological responses to high altitude, diving, microgravity, deserts, and extreme cold are examined.
Bio Sci	Plant Diversity in a Changing World		X	Investigation of planet diversity in California and throughout the world, including basic systematic concepts, an introduction to major groups of flowering plants, and the effects of global biological change on plant diversity.
Bio Sci	Population and Community Ecology		X	Population structure, function, development, and evolution. Topics include population structure, population growth and regulation, metapopulations, predation, competition, species diversity, ecosystem function, macroecology, and island biogeography. Offered every other Winter.
Bio Sci	Population Dynamics in Ecology, Epidemiology, and Medicine		X	Explore the dynamics of populations on an ecological, epidemiological, and medical level. Considers the dynamics of competition, predation, and parasitism; the spread and control of infectious diseases; and the in vivo dynamics of viral infections and the immune system.
Bio Sci	Processes in Ecology and Evolution		X	An in-depth study of the mechanisms that drive evolution and ecology including: natural selection, mutation, genetic drift, speciation, extinction, life history patterns, population dynamics, ecosystem and community structure, predator-prey and host pathogen interactions, and social behavior.
Bio Sci	Restoration Ecology	X		Theoretical and practical aspects of habitat restoration and mitigation. Design, implementation, and monitoring of restoration projects in local habitats. Collection of seed and cuttings, planting and maintenance presented. Control of exotics in natural areas discussed. Environmental ethics of restoration emphasized.
Bio Sci	Solutions in Science		X	Students will be introduced to approaches that can be used to solve scientific problems. These methods can be utilized in introductory to advanced classes and will allow students to become independent thinkers.
Bio Sci	Sustainable Landscaping: Design and Practices	X		Through lectures and hands-on work, students learn how to design habitats around dwellings, within cities, and in rural environments. These include traditional/sustainable landscaping, restoration, stormwater/wastewater treatment, xeriscaping, and low impact development design. Sustainable landscape plant materials emphasized.
Bio Sci	The Idiom and Practice of Science		X	The importance of biological sciences in our world is discussed. Topics may include brain and behavior, health and disease, genetics and society, and conservation biology. Primary goal is to encourage students to understand better the world in which they live.
Bio Sci	Topics in Ecology and Evolutionary Biology		X	Studies in selected areas of ecology and evolutionary biology.
Bio Sci	Tropical Biology: Race to Save the Tropics	X		Population growth combines with tropical resource consumption by industrialized nations to cause high rates of deforestation, pollution, habitat fragmentation, and extinction of species. Discusses tropical biomes, their population, community, ecosystem processes, and possible means of conservation of biodiversity.
	Total Biological Sciences	7	33	
Business	Global Marketing		X	Students are exposed to the challenges and opportunities facing marketers in the international marketplace. Special attention is given to the management of cultural differences in product development, distribution systems, pricing, and promotion.
Business	Leadership		X	Case analyses, free-form discussion, and written assignments designed to develop critical thinking skills, as well as knowledge of approaches to differing leadership challenges. Experiential exercises encourage students to develop their ability to innovate, foster collaboration, manage conflict, and value diversity.

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Business	Management of Contemporary Organizations		X	Equips students with working knowledge of several major subject areas within the context of business and society studies. Topics include: role of management in organizations, corporate social responsibility and responsiveness, ethics and values in business, government regulation, and international business.
Business	Strategic Management		X	Addresses management of the entire business. Role of the general manager in organizations, industry analysis, core competencies, growth through vertical integration, innovation, acquisition and diversification, globalization, strategy implementation, and the ethical and moral responsibility of a manager.
Business	Supply Chain Management		X	Flows of materials and information among all of the firms that contribute to a product or service. Forecasting, demand management, logistical networks, inventory management, supplier contracting, sourcing, information technology, flexibility, globalization, and performance management.
Business	U.S. Healthcare Systems		X	Providers, suppliers, payers, consumers, and the unique market dynamics among these players. Structure, organization, and financing of health care. The health care industry's relationship to the overall economy will be explored.
	Total Business	0	6	
Education	Child Development in Education		X	Explores the pathways of normally developing children's growth and change over time. In particular, focuses on how cognitive and social development impact and are driven by educational contexts.
Education	Classroom Interactions II		X	Focuses on equity and multicultural education research, special education, and research-based instructional and assessment strategies to assist students in designing, teaching, and assessing lessons that meet the needs of all secondary mathematics and science students.
Education	Complex Pedagogical Design		X	In this Cal Teach capstone course, students design lesson plans and complex instructional units, using approaches such as mathematics and science integration, problem-based instruction, project-based learning, technology, representations, scientific and mathematical analysis/modeling, authentic assessment, contextualization, and designing equitable learning environments.
Education	Education, Learning, and Culture		X	Exploration of learning and development through a cultural lens, drawing from a range of research traditions and disciplines to broaden understandings of theories that inform teaching and learning in formal and informal settings.
Education	Ethics and Education		X	Ethics in education and how ethicists frame moral problems. Presents major ethical themes that affect education. Analysis of models for dealing with ethical goals and developing morality for Kû12 students. Models for solving ethical dilemmas within an educational context.
Education	Family, School, and Community in Early Childhood		X	Focuses on the many socializing aspects of young children's social worlds. Through the use of ecological perspectives, explores the role of families, schools, and communities on children's social development, especially in early childhood.
Education	Multicultural Education in K-12 Schools		X	Provides a theoretical and empirical overview of educational issues affecting low-income immigrant and U.S. born minority student populations in an increasingly diverse and changing society.
Education	Multimedia and the Arts in the Multicultural Classroom		X	Multiculturalism and under-represented U.S. minorities and the visual and performing arts: perspectives in artistic perception, creative expression, historical and cultural context, aesthetic valuing, and media literacy in the interpretation and production of multimedia arts products and applications for K-12 classrooms.
Education	Origins, Purposes, and Central Issues in K-12 Education		X	An introduction to the role of education in U.S. society and to central issues in Kû12 education. Education is studied from four different perspectives: social, historical, philosophical, and political.
Education	Social Development in Education		X	Examination of contextual, psychosocial, and biological factors contributing to the social development of children and adolescents. Theoretical perspectives, empirical findings, and methodological issues are emphasized. Implications of the scientific evidence for practical and policy decision-making surrounding development are discussed.

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Education	Theories and Pedagogies of Race in Education		X	Introduces theoretical frameworks to examine the role of race in American education. Emphasis is placed on introducing students to different race and ethnicity paradigms.
	Total Education	0	11	
Engineering	Air Pollution and Control		X	Sources, dispersion, and effects of air pollutants. Topics include emission factors, emission inventory, air pollution, meteorology, air chemistry, air quality modeling, impact assessment, source and ambient monitoring, regional control strategies.
Engineering	Carbon and Energy Footprint Analysis		X	Process design for wastewater treatment. Mass- and energy-balance analysis applied to water and wastewater treatment systems. Case studies include analysis of water supply, treatment, reclamation, and reuse.
Engineering	Chemical Engineering Design II		X	Application of chemical engineering basics to practical design problems; process economics; process safety; environmental impacts; a major team design project with progress reports, oral presentation, and technical report with engineering drawings and economics.
Engineering	Chemical Engineering Laboratory II		X	Continuation of the CBEMS 140A covering mass transfer operations such as distillation, absorption, extraction, etc. Rate and equilibria studies in simple chemical systems with and without reaction. Study of chemical process.
Engineering	Chemical Processing and Energy Balances		X	Principles of thermodynamics: definitions, basic concepts, and laws; property relationships; construction of thermodynamic charts and tables; energy balances; phase and chemical equilibria; combined mass and energy balances.
Engineering	Chemistry and Technology for the Nuclear Fuel Cycle		X	Introduces basic concepts of nuclear chemistry and focuses on chemical engineering aspects of the nuclear power industry. A broad survey of the nuclear fuel cycle (uranium processing, reactor concepts, spent fuel treatment and repositories) will be given.
Engineering	Combustion and Fuel Cell Systems		X	Fundamentals of gaseous, liquid, and coal-fired combustion and fuel cell systems. Fuels, fuel-air mixing, aerodynamics, and combustion and fuel cell thermodynamics. Operating and design aspects of practical systems including engines, power generators, boilers, furnaces, and incinerators.
Engineering	Contemporary and Emerging Environmental Challenges		X	Introduces contemporary and emerging environmental challenges, illustrates links between human behavior, environmental policy, and engineering practices, examines policy options in the context of current institutions, and introduces tools and frameworks to reach sound economic, social, and environmental solutions.
Engineering	Electric Propulsion		X	Space propulsion requirements and maneuvers, stressing those best suited to electric propulsion. An introduction to plasma physics. Electrothermal, electromagnetic and electrostatis accelerators, with emphasis in technologies (ion engines, Hall thrusters and colloidal thrusters) belonging to the latter family.
Engineering	Energy Facilities Inspection		X	Inspection of power-generating stations of various types, oil and gas processing facilities, and end-use facilities.
Engineering	Entrepreneurship for Scientists and Engineers		X	Real-world introduction to the theory and practice of entrepreneurship. Explore organizational, strategic, and financial challenges; start-up strategies; business idea evaluation; and business plan writing. Presentations by prestigious entrepreneurs and industry leaders.
Engineering	Environmental Microbiology for Engineers		X	Fundamental and applied principles of microbiology. Structures and functions of microorganisms, the microbiology of water, wastewater and soil used in environmental engineering, and the impact of microorganisms on human and environmental health.
Engineering	Environmental Processes		X	Introduction to environmental processes in air and water, mass balances, and transport phenomena. Fundamentals of water-quality engineering including water and wastewater treatment.

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Engineering	Fluid Mechanics of Open Channels		X	Fundamentals of fluid motion in open channels. Navier-Stokes equations and one-dimensional momentum and energy principles. Topics include rapidly varied flow, flow resistance and turbulence, gradually varied flow, unsteady flow, and computational methods for channel flow modeling.
Engineering	Fluid Thermal Science Laboratory		X	Fluid and thermal engineering laboratory. Experimental analysis of fluid flow, heat transfer, and thermodynamic systems. Probability, statistics, and uncertainly analysis. Report writing is emphasized and a design project is required.
Engineering	Fuel Cell Fundamentals and Technology		X	Introduction to electrochemistry and electrocatalysis; nature of fuel-cell electrodes and electrolytes; charge transfer reactions at interfaces; charge transport and mass transport processes; fuel processing reactions; determination of fuel cell efficiency, fuel flexibility, emissions and other characteristics.
Engineering	Groundwater Hydrology		X	Topics include conservation of fluid mass, storage properties of porous media, matrix compressibility, boundary conditions, flow nets, well hydraulics, groundwater chemistry, and solute transport. Design projects and computer applications included.
Engineering	Hydrology		X	Elements of the hydrologic cycle including precipitation, infiltration, evapotranspiration, ground water, and runoff. Unit Hydrograph theory and routing methods. Introduction to precipitation/runoff relationship and watershed modeling. Statistical methods and flood frequency analysis.
Engineering	Introduction to Earthquake Engineering		X	Plate tectonics. Structural dynamics. Earthquake magnitude, intensity, and frequency. Seismic damage to structures. Earthquake load prediction including response spectra, normal mode, and direct integration techniques. The basis of building code earthquake load requirements for buildings.
Engineering	Materials Selection and Design		X	Meaning and phases of design. Design considerations. Safety issues and engineering ethics. Codes and standards. Materials selection in design. Materials selection to meet specific requirements. Statistical considerations. Engineering economics. Seminars on materials selection and design by industry leaders and faculty.
Engineering	Mechanical Engineering Design		X	A comprehensive group design project experience that involves identifying customer needs, idea generation, reverse engineering, preliminary design, standards, prototype development, testing, analysis, and redesign of a product involving fluid, thermal, and mechanical components. Introduces design for manufacturing and the environment.
Engineering	Methods III: Modeling, Economics, and Management		X	Analysis, modeling, and management of civil engineering systems. Statistics and system performance studies, probabilistic models and simulation, basic economics and capital investments, project elements and organization, managerial concepts and network technique, project scheduling. Emphasis on real-world examples. Laboratory sessions.
Engineering	Nano-Scale Materials and Applications		X	Overview of the chemistry, physics, and applications of nanometer-scale materials. Explore the effects of composition, bonding, and confinement on physical properties of nanomaterials, their chemical syntheses, and their device physics in electronic, optoelectronic, and energy technologies.
Engineering	Nuclear and Radiochemistry		X	Advanced treatment of nuclear structure, nuclear reactions, and radioactive-decay processes. Introduction to nuclear activation analysis, isotope effects, radiation chemistry, hot-atom chemistry, nuclear age-dating methods, nuclear reactors, and nuclear power.
Engineering	Physical-Chemical Treatment Processes		X	Theory and dynamics of physical and chemical separation processes in water and wastewater treatment. Topics include coagulation, sedimentation, filtration, gas-transfer, membrane separations, and adsorption.
Engineering	Power Systems		X	Generation, transmission, and use of electrical energy. Fault calculation, protection, stability, and power flow.
Engineering	Power Systems Laboratory		X	Experiments and field trips relevant to studies in power systems.
Engineering	Propulsion		X	Application of thermodynamics and fluid mechanics to basic flow processes and cycle performance in propulsion systems: gas turbines, ramjets, scramjets, and rockets.

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Engineering	Senior Design Project I		X	Teaches problem definition, detailed design, integration, and testability with teams of students specifying, designing, building, and testing complex systems. Lectures include engineering values, discussions, and ethical ramifications of engineering decisions.
Engineering	Senior Design Project II		X	Teaches problem definition, detailed design, integration, and testability with teams of students specifying, designing, building, and testing complex systems. Lectures include engineering values, discussions, and ethical ramifications of engineering decisions.
Engineering	Solar and Renewable Energy Systems	X		Basic principles, design, and operation of solar and other renewable energy systems including solar photo-voltaic, solar thermal, wind, and PEM fuel cell. Includes power generation and storage, and renewable fuels for transportation and stationary power generation.
Engineering	Sustainable Energy Systems	X		Basic principles, design, and operation of sustainable energy systems including wind, solar photo-voltaic and thermal, hydroelectric, geothermal, oceanic, biomass combustion, advanced coal, and next generation nuclear. Includes power generation, storage, and transmission for stationary power generation.
Engineering	Transportation and the Environment	X		Analysis of the impacts of motor vehicle transportation on the environment. Introduction to life cycle analysis applied to transportation. Basic economic tools for transportation externalities. Transportation planning, urban form, health, and the environment. Transportation sustainability.
Engineering	Transportation Systems I: Analysis and Design		X	Introduction to analysis and design of fundamental transportation system components, basic elements of geometric and pavement design, vehicle flow and elementary traffic, basic foundations of transportation planning and forecasting. Laboratory sessions.
Engineering	Transportation Systems II: Operations & Control		X	Introduction to fundamentals of urban traffic engineering, including data collection, analysis, and design. Traffic engineering studies, traffic flow theory, traffic control devices, traffic signals, capacity and level of service analysis of freeways and urban streets. Laboratory sessions.
Engineering	Transportation Systems III: Planning and Forecasting		X	Theoretical foundations of transportation planning, design, and analysis methods. Theory and application of aggregate and disaggregate models for land use development, trip generation, destination, mode, and route choice. Transportation network analysis. Planning, design, and evaluation of system alternatives.
Engineering	Transportation Systems IV: Freeway Operations and Control		X	Fundamentals of traffic on urban freeways, including data collection analysis, and design. Traffic engineering studies, traffic flow theory, freeway traffic control devices, capacity, and level of service analysis of freeways and highways. Laboratory sessions.
Engineering	Wastewater Treatment Process Design		X	Design of biological treatment processes. Topics include attached and suspended growth, aeration, anaerobic systems, process control, and economics. Design projects included.
Engineering	Water Resources Engineering		X	Principles governing the analysis and design of water resource systems including pressurized pipelines, pipe networks, channels, and ground water. Coverage of fluid mass, momentum and energy conservation, flow resistance, and related laboratory measurements in different systems.
Engineering	Watershed Modeling		X	Basic principles of hydrologic modeling are practiced. Concepts of watershed delineation, land use change impact, design studies, and GIS tools are discussed. Focus on the USACE (HEC) software tools (HEC-HMS, and HEC-RAS) along with their associated GIS interfaces.
	Total Engineering	3	38	
Humanities	Africa: Societies and Cultures		X	Introduction to the variety of cultures, political organizations, social structures, and artistic expressions created by Africans over a broad time span. Indigenous development of African societies in distinct regions of the continent. Issues, themes, processes for understanding history of Africa.
Humanities	American Urban History		X	A study of urban communities in the United States, from colonial times to the present. Traces the impact of industrialization and urbanization on social and cultural life, and investigates the significance of urban life for U.S. democratic culture.

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Humanities	Applied Ethics		X	Topics may include capital punishment, world hunger, obligations to future generations, environmental ethics, animal rights, economic justice, sexual morality, affirmative action, racism and sexism, or legalization of drugs.
Humanities	California Dreaming: Conquest, Conflict, and Globalization in the Golden State		X	California as a case study of national trends and as a unique setting: its specific problems and culture. Major themes include: colonization, immigration, race relations, agricultural development, industrialization, urbanization, working class movements, social conflict, and political reform.
Humanities	Critical Cultural Studies		X	Introduces a variety of ways of understanding cultural phenomena in relation to different power structures. These cultural phenomena may include comics, film, literature, sports, music, festivals, telling stories, or eating out.
Humanities	Cultural Studies		X	Introduces students to a variety of cultural practices (literature, blogs, films, radio, comics) from across the globe. Focuses on the ways that context, genre, and medium (e.g., written, visual, oral) affect how these practices are produced, circulated, and received.
Humanities	Documentary and Experimental Film and Media		X	Examines nonfiction and/or experimental cinemas and media, such as documentary, the historical avant-garde, video art, and activist media. Students consider the specific aesthetics and ideologies of forms distinct from narrative feature films.
Humanities	Global Cultures I		X	Introduction to the processes by which economies, cultural practices, national entities, groups, individuals, and personal identities have undergone globalization. General background and methodological tools for understanding problems and processes of globalization.
Humanities	Global Cultures II		X	Introduction to the processes by which economies, cultural practices, national entities, groups, individuals, and personal identities have undergone globalization. Explores how globalization has manifested itself in specific topics, periods, or societies.
Humanities	Historical Foundations		X	Offers an overview of the European experience from its social, political, and cultural foundations to modern European issues and institutions in a globalized world. Topics include social, political, and cultural history up to the founding of the European Union.
Humanities	International Studies and the Classics		X	Develops a broader understanding of the formation of different cultures and countries of Classical times and their impact on the modern world.
Humanities	Money, Sex, and Power		X	Examination of gender and sexuality in relation to the emergence of the modern world, modernity, and capitalism; commodification, circulation, and transnational exchanges relating to race, gender, class, sexuality, religion, and nationality.
Humanities	Race and Urban Space		X	Examines how ethnic and racial processes shape and structure interactions in urban settings, such as schools, housing, employment, and public spaces, with attention to the international impact of globalization and postcolonial forces.
Humanities	Social Ecology and Sciences: Problems and Methods for Global Middle East Studies		X	Introduces students to the broad set of approaches to studying the Middle East as a global zone of cultural, political, and economic interaction, focusing on the disciplines related to Social Ecology.
Humanities	Studies in Architecture after 1945		X	Architecture and related design practices from 1945 through present are studied in relation to social, aesthetic, technological, and political questions.
Humanities	Studies in Modern Architecture		X	Architecture and related design practices from the late eighteenth century through 1945 are studied in relation to social, aesthetic, technological, and political questions.
Humanities	The Metropolis and Other Cultural Geographies		X	Examines the relationship between space and culture; cultural production in the city, suburb, and/or countryside; spaces in texts and artifacts (film, literature, comics, photographs) in a global context.
	Total Humanities	0	17	

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ICS	Global Disruption and Information Technology		X	Explores how new forms of information technology may support transition to a sustainable civilization. Topics include design and implementation of IT systems, science of global change, online community building, and ôgreen ITö. Activities involve reading, writing, discussion, and final project.
ICS	Project in Bioinformatics		X	Teaches problem definition and analysis, data representation, algorithm design, component integration, solution validation, and testability with teams specifying, designing, building, and testing a solution to a bioinformatics problem. Lectures include engineering values, discussions, and ethical ramifications of biomedical computing issues.
	Total ICS	0	2	
Phy Sci	Ice in the Climate System	X		Examines the major components of the EarthÆs cryosphere. Characteristics, volume, extent, remote sensing observations, long-term trends, mass balance, key physical processes, relevance and importance to the climate system, responses and feedbacks, future evolution, and key uncertainties will be discussed.
Phy Sci	Advanced Geology		X	Introduces students to the geological processes which have formed and continue to shape the Earth. Topics will include geological time, minerals and the rock cycle, plate tectonics and associated geological hazards, earth resources, and earth surface processes.
Phy Sci	Advanced Laboratory in Chemistry and Synthesis of Materials		X	Modern synthesis and characterization of organic and inorganic materials including polymers, nanomaterials, and biomaterials. State-of-the-art characterization techniques include gel permeation chromatography, dynamic light scattering, thermal analysis, mechanical analysis, electron and scanning probe microscopy, X-ray diffraction, and porosimetry.
Phy Sci	Advanced Organic Chemistry		X	Rapid-paced comprehensive treatment of organic chemistry. Focuses on molecular structure, reactivity, stability, scope and mechanisms of organic reactions. Topics include: structure and bonding; theoretical organic chemistry; acidity and basicity; reactive intermediates; pericyclic reactions; stereochemistry; organic synthesis; natural products; organic photochemistry.
Phy Sci	Air Pollution: From Urban Smog to Global Change	X		Air pollution occurs on regional to global scales. A wide range of air pollution sources and physical, chemical, and meteorological sciences behind air pollution are introduced. The consequences of air pollution to our society are also discussed.
Phy Sci	Atmospheric Chemistry	X		Chemistry of the troposphere and stratosphere. Topics include processes controlling the lifetime and reaction pathways of chemicals in the atmosphere, the role of the atmosphere in biogeochemical cycles, and interactions between atmospheric chemistry and the physical climate system.
Phy Sci	Calculus for Life Sciences		X	Differential calculus with applications to life sciences. Exponential, logarithmic, and trigonometric functions. Limits, differentiation techniques, optimization and difference equations.
Phy Sci	Chemistry Around Us		X	Addresses ways in which chemistry affects everyday life. Topics include pollution, global warming, water supply/demands, biodiesel fuels, foods we eat, natural/synthetic materials, common drugs, drug design. Learn and apply basic chemistry concepts. Use risk/benefit analysis for optimal solutions.
Phy Sci	Consequences of Air Pollution	X		From public health to the global climate system this course will explore the impacts of air pollution from the beginning of human history to current and emerging issues. Scientific concepts behind air pollution and solutions will be discussed.
Phy Sci	Cosmology: Humanity's Place in the Universe		X	An overview of the origin, evolution, and ultimate fate of the Universe. Galaxies and dark matter. The Big Bang and dark energy. Ancient world models.
Phy Sci	Data Analysis for Earth Sciences	X		Analysis and interpretation of geophysical data, including functional fitting, probability density functions, and multidimensional time-series methods, with applications in atmospheric, oceanic, and biogeochemical sciences.

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Phy Sci	Earth System Science Laboratory and Field Methods	X		Introduction to methods used to measure exchange of gases and energy between the atmosphere and terrestrial ecosystems. Laboratories include data acquisition and isotopic and chromatographic analysis. Field measurements at UCI's Marsh Reserve include microclimate, hydrology, trace-gas exchange, and plant growth.
Phy Sci	Earth's Atmosphere	X		Composition, physics, and circulation of Earth's atmosphere with an emphasis on explaining the role of atmospheric processes in shaping the climate system. Topics include atmospheric composition, the global energy balance, radiative transfer and climate, atmospheric circulation, and climate sensitivity.
Phy Sci	Ecosystem Ecology		X	A mechanistic perspective on ecosystem processes. Covers ecosystem development, element cycling, and interactions with plants and microbes. The role of ecosystems in environmental change is also addressed.
Phy Sci	Energy and the Environment	X		The physics of societyÆs energy production and consumption, and of their influences on the environment. Topics include fossil and renewable energy resources; nuclear power; prospects for a hydrogen economy; efficient and environmentally benign transportation; efficient home and commercial energy usage.
Phy Sci	Environmental Controversies		X	Examines the roles and strategies of advocacy groups, scientists, lobbyists, celebrities, pundits, politicians, and other opinion-makers in creating and shaping public opinion on controversial environmental issues. Use and misuse of science to influence public opinion is elicited.
Phy Sci	Environmental Isotope Geochemistry		X	Topics include the fundamentals of stable, radioactive, and radiogenic isotope variability in the Earth System. Focuses on theory, measurement techniques, biogeochemistry, hydrology, ecology, and climate related applications.
Phy Sci	Environmental Microbiology		X	Establishes a fundamental understanding of microbes living in the environment, including their distribution, diversity, and biochemistry, and discusses how they attribute to global biogeochemical cycles.
Phy Sci	Fundamental Processes in Earth and Environmental Studies	X		An introduction to the physical environment, biological systems, and human-environment interactions. Explores physical principles such as fluid transport and reaction rates using environmental examples as well as principles of populations, ecosystems, carrying capacity, and sustainable use of resources.
Phy Sci	Fundamentals of GIS for Environmental Science	X		Introduction to Geographic Information Systems (GIS). Topics include fundamentals of cartography, creating/editing GIS data, linking spatial and tabular data, georeferencing, map projections, geospatial analysis, spatial statistics, and the development of GIS models. Examples from hydrology, ecology, and geology.
Phy Sci	Global Climate Change and Impacts	X		Observations over the 20th century show extensive changes in atmospheric composition, climate and weather, and biological systems that have paralleled industrial growth. Evidence of globally driven changes in these biogeochemical systems is studied, including projected impacts over the 21st century.
Phy Sci	Global Environmental Issues	X		An overview of global environmental changes including climate change, sea level rise, biodiversity loss, land and ocean degradation, and resource depletion. Discusses scientific, cultural, historical, and policy dimensions of these issues as well as possible solutions.
Phy Sci	Honors Research in Earth System Science	X		Undergraduate honors research in Earth System Science. A student commitment of 10-15 hours a week is expected, and a written report is required at the end of the quarter.
Phy Sci	How Things Work		X	Survey of the physical basis of modern technology, with an emphasis on electronics and materials. Topics include power generation and distribution, communication (radio, TV, telephone, computers, tape recorders, CD players), imaging (optics, x-rays, MRI), and modern materials (alloys, semiconductors, superconductors).
Phy Sci	Hurricanes, Tsunamis, and Other Catastrophes		X	Introduction to the basic science and state of predictability of various natural catastrophic events including earthquakes, volcanic eruptions, tsunamis, landslides, floods, hurricanes, fires, and asteroid impacts and their interactions and implications with human society in the U.S. and globally.
Phy Sci	Introduction to Chemical Biology		X	Introduction to the basic principles of chemical biology: structures and reactivity; chemical mechanisms of enzyme catalysis; chemistry of signalling, biosynthesis, and metabolic pathways.
Phy Sci	Introduction to Chemical Biology Laboratory Techniques		X	Introduction to the basic laboratory techniques of chemical biology: electrophoresis, plasmid preparation, PCR, protein expression, isolation, and kinetics.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Phy Sci	Introduction to Earth System Science	X		Covers the origin and evolution of the Earth, its atmosphere, and oceans, from the perspective of biogeochemical cycles, energy use, and human impacts on the Earth system.
Phy Sci	Introduction to Global Climate Change	X		Introduction of scientific, technological, environmental, economic, and social aspects underlying the threat and understanding of global climate change. Human and natural drivers of climate. Impacts of climate on natural, managed, and human systems, including their vulnerability and ability to adapt.
Phy Sci	Introduction to Modeling the Earth System	X		Simulate the Earth's system using computer models. Covers the interaction of the air, land, and ocean, and explores how changes to one part of the environment affect the complete Earth system. Utilizes technological tools to understand scientific principles.
Phy Sci	Introduction to Research in Earth System Science	X		Weekly presentations by Earth System Science faculty describing ongoing research in their laboratories. Students are introduced to the range of research topics and methods in Earth System Science and to the research opportunities available within the Department.
Phy Sci	Land Interactions	X		The role of terrestrial processes in the Earth system. Provides an introduction to ecosystem processes that regulate the cycling of energy, water, carbon, and nutrients. Analysis of the impact of human activities.
Phy Sci	Life in the Universe		X	An overview of the scientific quest to discover life elsewhere in the universe. Topics include the origin of life on Earth, Mars, extra-solar planets, interstellar travel, and extra-terrestrial intelligence.
Phy Sci	Local and Regional Environmental Issues	X		An introduction to common environmental issues using case studies from Orange County and California. Studies natural hazards as well as human-caused problems with air quality, water quality, coastal pollution, ecosystem degradation, and urban climate.
Phy Sci	Marine Conservation, Policy, and Society		X	Conservation of marine ecosystems is important yet challenging due to competing physical, ecological, social, and regulatory issues. Students explore the principles of marine conservation, the scientific basics of marine ecosystems, and political and social processes involved with resource protection.
Phy Sci	Marine Ecosystems and Global Change	X		Presents an overview of marine ecosystem structure, diversity, and processes in the context of global change, including the impacts of climate warming, ocean acidification, marine fisheries, and anthropogenic additions of nutrients and pollutants.
Phy Sci	Marine Geochemistry and Biogeochemistry		X	Processes controlling the major and minor element composition of seawater and element distributions in the ocean. Gas exchange, carbon dioxide system, stable isotopes, radionuclides as tracers and chronometers, particle fluxes, organic geochemistry, sediment geochemistry, global cycles of biogeochemically important elements.
Phy Sci	Mathematical Modeling		X	Mathematical modeling and analysis of phenomena that arise in engineering physical sciences, biology, economics, or social sciences.
Phy Sci	Ocean Biogeochemistry		X	Overview of oceanography for those interested in Earth System Science. Focus is on physical, chemical, and biological processes that drive biogeochemical cycling in the oceans. Coastal systems are also reviewed, with an emphasis on California waters.
Phy Sci	Oceanography		X	Examines circulation of the world oceans and ocean chemistry as it relates to river, hydrothermal vent, and atmospheric inputs. Geological features, the wide variety of biological organisms, and global climate changes, such as greenhouse warming, are also studied.
Phy Sci	On Thin Ice: Climate Change and the Cryosphere	X		Introduction of the basic science that governs the cryosphere and its interaction with the climate system. Covers some of the significant economic, sociological, and political consequences of the recent melting of the cryosphere driven by anthropogenic climate change.
Phy Sci	Organic Chemistry		X	Fundamental concepts relating to carbon compounds with emphasis on structural theory and the nature of chemical bonding, stereochemistry, reaction mechanisms, and stereoscopic, physical, and chemical properties of the principal classes of carbon compounds.
Phy Sci	Organic Chemistry Laboratory		X	Modern techniques of organic chemistry, using selected experiments to illustrate topics introduced in CHEM 51A-CHEM 51B-CHEM 51C.

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Phy Sci	Organic Synthesis Laboratory		X	Modern experimental techniques in organic synthesis including experience with thin-layer chromatography, liquid chromatography, and gas chromatography. Modern methods of structure elucidation including FT NMR are employed in the characterization of products.
Phy Sci	Paleoclimatology	X		Explores past changes in Earth's climate. Topics include tools and techniques used to reconstruct past climate from natural archives; records and mechanisms of past climate changes throughout Earth history; and lessons learned from the paleo-record for predication of future climate.
Phy Sci	Physical Geology		X	Introduction to Earth materials and processes. Topics include rocks and minerals, plate tectonics, volcanoes, earthquakes, Earth surface processes, Earth resources, geologic time, and Earth history. Laboratory work involves hands-on study of geologic materials, maps, and exercises pertaining to geologic processes.
Phy Sci	Physical Oceanography		X	Physical processes that determine the distribution of water properties such as salt and temperature. Fluid-dynamical underpinnings of physical oceanography. Wave motions. The wind-driven and thermohaline circulation. Similarities and differences between ocean and atmosphere dynamics.
Phy Sci	Physiological Plant Ecology		X	An examination of the interactions between plants and their environment. Emphasis on the underlying physiological mechanisms of plant function, adaptations and responses to stress, and the basis of the distribution of plants and plant assemblages across the landscape.
Phy Sci	Programming for Earth System Science and Ecology	X		Students learn programming and numerical methods in Python with applications in Earth System Science and ecology. Topics include regression, uncertainty and significance, the development of simple box models, and the visualization of multi-dimensional climate and satellite datasets.
Phy Sci	Research Methods for Sustainable Systems Analysis	X		Develops students' analytical skills that are necessary to engage and assess the sustainability of coupled human and natural systems and effectively communicate their findings.
Phy Sci	Satellite Remote Sensing for Earth System Science	X		Satellite remote sensing data are increasingly used to study the Earth system. Provides an overview of the principles behind remote sensing, and the types of satellite data available for study of the oceans, land, and atmosphere.
Phy Sci	Science Communication and Outreach		X	Students learn and practice effective science communication skills useful in public and educational outreach. Topics include research explication, language scaffolding, educational psychology, oral presentation techniques, K-12 science standards, and effective writing styles for op-eds, blogs, and Web sites.
Phy Sci	Science Fiction and Science Fact		X	An introduction to fundamental physics principles, the scientific process, and the mathematical language of science, used to analyze topics drawn from superheroes, science fiction works, and current science news to distinguish science fiction and science fact. May be offered online.
Phy Sci	Solving the Energy-Carbon-Climate Problem	X		Why is climate change such a difficult problem? What can we do about it? The course will introduce the global politics of energy and climate, assess options for decreasing energy demand, generating low-carbon energy, sequestering carbon, geoengineering, and adaptation.
Phy Sci	Space Science		X	Space exploration. Human missions to the moon, Mars, and beyond. Space stations, observatories, and deep-space probes. Robots and drones on distant worlds. Propulsion mechanisms, rockets, space flight, and the dangers of solar radiation.
Phy Sci	Terrestrial Hydrology		X	Comprehensive treatment of modern conceptual and methodological approaches to hydrological science. Combines qualitative understanding of hydrological processes with quantitative representation, approaches to measurement, and treatment of uncertainty. Components of the hydrological cycle and their linkages within the coupled Earth system.
Phy Sci	The Atmosphere	X		The composition and circulation of the atmosphere with a focus on explaining the fundamentals of weather and climate. Topics include solar and terrestrial radiation, clouds, and weather patterns.
Phy Sci	The Impact of Climate Change on California's Landscape	X		Overview of anticipated impacts of climate change on California's landscape. Includes projections of future climate; anticipated impacts on ecology, hydrology, wildfire, coastal environment, and agriculture; and efforts to reduce greenhouse gas emissions or adapt to climate change through land management.

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Phy Sci	The Sustainable Ocean	X		An introduction to sustainability as it relates to marine resources and conservation. Topics include the scientific basis of our understanding of marine ecosystems, and the political, social, and cultural principles that govern resource protection.
Phy Sci	Thermal Physics		X	Introduction to thermodynamics and systems of many particles. Topics include first and second laws of thermodynamics, ideal gas laws, kinetic theory, heat engines and refrigerators, thermodynamic potentials, phase transitions, dilute solutions, chemical equilibrium, and basic statistical distributions.
Phy Sci	Thermodynamics		X	Macroscopic theory of temperature, heat, and entropy; mathematical relationships of thermodynamics; heat engines; phase transitions.
Phy Sci	Weather Analysis		X	Provides an overview of weather systems in midlatitudes and tropics. The fundamental dynamics possible for these weather systems are described. Elementary weather analysis and forecasting techniques are introduced.
	Total Phy Sci	29	34	
Public Health	Air Pollution, Climate, and Health		X	Introduction to how air pollutants are emitted into the atmosphere, how people are most exposed to air pollutants in developed and developing areas, physical and meteorological processes that affect transport, and the influence of air pollutants on global warming.
Public Health	Case Studies in Public Health Practice		X	Presents case studies in various themes of public health practice to demonstrate how the principles of public health were established and continue to evolve.
Public Health	Disparities in Health Care		X	Student participatory course practicing initiation, planning, and coordination of various speakers on the subject of Disparities in Health Care.
Public Health	Environmental and Public Health Policy	X		Examines factors involved in shaping public health and environmental policy. Topics include the role of science in public health policy, the function of governmental regulatory agencies, citizen participation, and economic and sociopolitical aspects of controlling infectious diseases and regulating carcinogens.
Public Health	Environmental Geology		X	Introduction to geologic principles and applications to environmental problems. Topics include: tectonic processes, earth materials, soils, river processes, groundwater, the coastal environment, slope failures, seismic hazards, mineral resources, and land-use evaluation based on geologic conditions. Examples from case studies.
Public Health	Environmental Psychology		X	Impact of the physical environment on individual and group behaviour. Three basic concerns examined: (a) environmental determinants of behaviour at the individual and interpersonal level; (b) social planning and urban design; (c) methodological approaches to the study of environmental issues.
Public Health	Environmental Quality and Health	X		Overviews how pollution in the environment affects human health. Topics are toxicology, epidemiology, risk assessment, water, food, air, radiation, pesticides, solid and hazardous waste. Included are interdisciplinary elements of environmental regulations, education, and consumer protection.
Public Health	Epidemiology of Infectious Disease		X	Examines the distribution of infectious disease and the health and disease risk among human populations. Introduces basic methods for infectious disease epidemiology. Case studies of important diseases, including HIV and malaria, are conducted.
Public Health	Ethics and Responsible Conduct of Research in Public Health		X	Issues of scientific integrity and satisfies the requirements for training in public health ethics. Includes guidelines for responsible conduct of research, federal and international codes, administrative review and approval, conflict of interest, and privacy and safety of research participants.
Public Health	Geographic Information Systems for Public Health		X	Provides a broad introduction to the use of Geographic Information Systems software to carry out projects for visualizing and analyzing spatial data to address significant issues of health care and policy-planning.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Public Health	Health and Global Environmental Change	X		Overview of scientific underpinnings of global environmental change and human health consequences. Provides an understanding of the fundamental dependency of human health on global environmental integrity. Encourages disciplinary cross-fertilization through interaction of students in environmental, health, and policy sciences.
Public Health	Health Behavior Theory		X	Introduces theoretical perspectives from the social sciences to understand health behavior from the vantage point of individuals, their interpersonal contacts, communities, and ecological contexts. Application of theory to public health problems is a central focus.
Public Health	Health Promotion Programs		X	Examines ecological perspectives of health promotion programs and risk factors related to mortality/morbidity. Analyzes effectiveness of health promotion strategies and issues in the existing healthcare systems in light of sociocultural beliefs and economical/political conditions.
Public Health	Human Exposure Modeling		X	Indirect methods in estimating human exposure to environmental agents. Topics include air, noise, dermal and ingestion exposure assessment, time-activity and micro-environmental approach, uncertainty and variability analysis, and the use of GIS and remote sensing in exposure assessment.
Public Health	Human Exposure to Environmental Contaminants		X	Introduces origins of human's realization that chemicals in the environment may adversely affect health. Introduces the theory and principles of exposure assessment. Covers estimation of exposure, variability of measures, the way exposure assessment is incorporated into the risk-assessment paradigm.
Public Health	Introduction to Environmental Health Science		X	Focuses on processes of exposure to environmental toxins/agents and their impact to human health and the environment. Media transport, exposure assessment, susceptibility, behavior, and health effect of several toxins are discussed.
Public Health	Introduction to Epidemiology		X	The distribution of disease and injury across time, space, and populations. Covers basic concepts and methods of descriptive epidemiology including the natural history of disease, data, and indices of health.
Public Health	Introduction to Genetic Epidemiology		X	Examines the methodological approaches for studying the importance of genetic factors and gene-environment interactions in human diseases. Topics include: genetic and epidemiological concepts, population studies, family studies, and applications in medicine and public health.
Public Health	Introduction to Global Health	X		Provides a foundational interdisciplinary understanding of global health issues and their importance to various societal goals, including poverty reduction, economic productivity, and peace promotion. Covers major communicable and non-communicable diseases and demographic patterns of disease burden.
Public Health	Introduction to Urban Environmental Health	X		Study of natural and physical components of earth's environmental problems due to human activities. Topics include global air, water, soil, biodiversity, rainforests, energy, demographics, agriculture, and urbanization. Theme is sustainability. Integrated into the science are social, legal, and economic considerations.
Public Health	Natural Disasters	X		Natural disasters are natural Earth processes that adversely affect humans. Topics include tectonics, earthquakes, tsunami, volcanoes, landslides, severe weather, flooding, coastal processes, wildfire, related topics, and use of GIS for hazard and risk assessment.
Public Health	Nutrition and Global Health	X		Global issues related to nutrition and public health. Evaluation of nutritional risk factors associated with the development of chronic diseases and the role of nutritional medicine in prevention. Topics include food safety, communicable diseases, supplements, and regulatory issues.
Public Health	Principles of Public Health	X		Introduces the major concepts and principles of public health and the determinants of health status in communities. Emphasizes the ecological model that focuses on the linkages and relationships among multiple natural and social determinants affecting health.
Public Health	Public Health Administration		X	Examines historical aspects of public health administration including policies, procedures, trends, and development of organizations. Addresses information and skills necessary to succeed in public health leadership roles. Discusses strategic planning, collaborations, and ethical considerations for successful management in public health.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Public Health	Public Health and Wellness		X	Presents information about wellness from both science and policy perspectives in order to demonstrate the role of wellness in public health. Emphasizes the conditions that create wellness in the individual, the community, the nation, and the world.
Public Health	Public Health Communication		X	Theoretical underpinnings and practical applications of communication sciences in public health practice. Techniques of effective communication, including fear appeal and deterrence; social marketing; public-private partnerships; health service delivery; and outreach in rural and urban settings, and for international health strategies.
Public Health	Public Health Law: Fundamentals in Action	X		Addresses the relationship of U.S. public health law to health systems at the individual and population levels. Examines legislative and judicial concepts and how they are applied to disease prevention strategies, health services, management, and policy.
Public Health	Public Health Programs for the Corporate World		X	International perspective on workplace health promotion. Strategies for developing programs to improve employee health and to decrease risks of chronic degenerative diseases. Case studies include assessment of employee health, program design, implementation, and evaluation. Emphasis on disease prevention.
Public Health	War and Public Health		X	Explores how war impacts public health both globally and domestically in the United States. Focus on the link between war and the burden that it ultimately places on physical, mental, environmental, and societal health as well as on health systems.
	Total Public Health	9	20	
Soc Sci	Afghanistan		X	Provides an examination of Afghanistan's traditional social organization, economy, political organization, and relationship among ethnic groups as a basis for discussing the consequences of domestic political turmoil and foreign interventions over the last 20 years. Current situation and future addressed.
Soc Sci	African Politics		X	An overview of African politics in comparative perspective. Central themes include the analysis of state-nation building in Africa, AfricaÆs economy, and its civil society as this relates to implications for development prospects on the continent.
Soc Sci	American Economic History from Colonization to the Present		X	Examines how the American economy evolved from colonization to the post-war era. Topics include relations with foreign countries, the emergence of manufacturing and big business, railroads, slavery, war, the Great Depression, the rise of fiscal and monetary policies.
Soc Sci	American Metropolitan Politics		X	Explores the politics of urban and suburban America, including the policy making process; the exercise of political power; local politics, federalism and the problems of metropolitanism; and major policy problems facing urban areas.
Soc Sci	American Public Policy		X	Focuses on the development and implementation of public policy in the United States. Lectures cover theoretical models of the policy process as well as significant problems facing contemporary American decision-makers.
Soc Sci	Ancient Civilization of Mexico and the Southwest		X	The prehistory and cultural evolution of the civilization which originated in Mexico, including the Olmecs, Aztecs, Toltecs, Maya, and Zapotec, as well as the Pueblos of the Southwestern U.S. Topics include the origins of food production and of the state.
Soc Sci	Anthropology of Food		X	Examines how food communicates ideas about ethnocentrism, disgust, privilege, gender, race, labor, social identities and hierarchies, globalization, power, and the "Western diet" and its health consequences.
Soc Sci	Births, Deaths, and Migration		X	Introduction to the analysis of human population including fertility, mortality dispersion, sex distribution. Attention is focused on the effects of these variables on, e.g., over-population, social disorganization, and the stability of social institutions.
Soc Sci	California Politics		X	Examines the structure and function of California government, traces historical development of political power, with constantly changing casts of power-brokers and seekers. Explores California exceptionalism and the roles played by the electorate, legislature, executive, and organized interests in policy making.

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Soc Sci	Canadian Politics		X	Addresses the basic structures and processes of contemporary Canadian government and politics. Additional topics may include regionalism, federalism, western alienation and oil, Canadian solutions to social welfare policy questions, developments in Quebec, and other issues associated with French-English relations.
Soc Sci	City and Community		X	Examines nature, causes, and consequences of urbanization along with changing scale and complexity, demographic/ecological city growth patterns, quality of life in urban areas, processes of decision-making, and bearing of sociological investigation on public policy concerns in contemporary urban society.
Soc Sci	Current Issues in Political Economy		X	Political economy seeks explanations that combine insights from both economics and politics. Topics include the interaction of government and markets, the causes of the Great Recession, and the sources of income and wealth inequality.
Soc Sci	Ecological Anthropology		X	Studies relationships between human communities and their natural environments. The role of environment in shaping culture; effects of extreme environments on human biology and social organization; anthropologist's role in studying global environmental problems, e.g., African famine, tropical rain forests destruction.
Soc Sci	Economic Anthropology		X	Economic systems in comparative perspective: production, distribution, and consumption in market and non-market societies; agricultural development in the third world.
Soc Sci	Economic Development		X	Considers the process of economic development across the globe and why some countries are rich and others poor. Discusses the major problems facing developing countries, such as population growth, education, capital formation, environmental protection, and international trade.
Soc Sci	Economics of Asymmetric Information		X	Focuses on the effects of asymmetric information in the markets for traditional economic goods and resources, such as labor, insurance, used cars, credit, and in auctions and bargaining problems. Prerequisite:
Soc Sci	Economics of the Environment	X		Surveys economic aspects of natural resources, pollution, population, and the environment. Examines the causes of pollution; analysis of public policies regarding these problems. Emphasis on microeconomic aspects of environmental problems.
Soc Sci	Economics of the Environment II	X		Applications of the tools covered in ECON 145E to topics such as global warming, destruction of the ozone layer, and emissions trading. Emphasis on independent research papers. Syllabus and classes include writing technique.
Soc Sci	Energy Economics	X		The economics of markets for oil, natural gas, electricity, and renewable energy, and their interactions with each other and the rest of the economy. Effects of government intervention, policy measures, economic policy issues arising between energy use and the environment.
Soc Sci	Environment and Society	X		Examines society's changing relationship to the natural world. Delineates different models of "nature" and then explores their institutional roots, the social responses they have generated, and their implications for social inequality.
Soc Sci	Environmental Anthropology	X		Introduces students to anthropological and qualitative research on the relationship of humans, non-humans, and environments. Focuses on how to analyze and evaluate social and cultural differences in environmental perception, relations, justice, governance, sustainability, and cosmology.
Soc Sci	Field Studies in Social Policy and Public Service		X	Advanced training in qualitative and ethnographic research centered on community service. Students pursue field studies at nonprofit agencies (200 hours) to understand current social problems in underrepresented and underserved communities. Through field placement, students apply theory to practice.
Soc Sci	Game Theory and Politics I		X	Introduction to game theory and a survey of its political applications. Examples of topics covered include voting in small committees, legislatures, and mass elections; interest group activities and environmental issues; institutional design, and the evolution of cooperative behavior.
Soc Sci	Game Theory and Politics II		X	More advanced game theory and its political applications, beginning where Game Theory and Politics I ends. Examples of topics covered include revolutions; arms race; spatial models of party competition; political manipulation; political coalitions and their power.

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Soc Sci	Gender and Global Health		X	Examines the social forces, life circumstances, and political and economic processes that influence gendered health outcomes. Focuses especially on women located at the economic and political margins of societies throughout the world.
Soc Sci	Gender and Race Inequality in the Workplace		X	Analysis of current state and trends in major inequality measures including the wage gap, occupational segregation, and access to managerial positions. Theories that purport to explain such differences, and the related empirical evidence, are also covered.
Soc Sci	Global Connect		X	Identifies factors of change that influence the twenty-first century. Students serve as mentors at high schools to introduce globalization issues through workshops and lectures. Students must submit an application and have a 3.0 or higher overall GPA.
Soc Sci	Global Cultures and Society		X	Offers a general overview of the rise of global interdependence in political, economic, demographic, and cultural terms. Considers what drove people from relative isolation into intensified intercourse with one another, and investigates the consequences of this shift.
Soc Sci	Global Economics and Security		X	Analyzes U.S. economic strategy, the impact of U.S. foreign policy on economic strategy, the rise and the challenge of future Great Powers, and focuses on theories of growth, hegemonic stability, and the rise of interdependence in the economic field.
Soc Sci	Global Economy		X	Acquaints students with the fundamental patterns of the global economy. Emphasizes the historical roots and political implications of economic choices.
Soc Sci	Global Issues in Anthropological Perspective		X	Explores anthropological perspectives on issues of importance in an increasingly global society. Topics include emphases on ethnic conflict; identity; immigration and citizenship; religion and religious diversity; medical anthropology; legal anthropology; development and economic change; gender.
Soc Sci	Global Migrations, Anthropology, and the Law		X	Course explores how cultural contexts and national laws frame migration, and define categories of migrants, families, and people. Topics include illegality, transnational families, refugees and economic migrants, labor conditions, deportation practices, discipline and crime, citizenship controversies, and nativism.
Soc Sci	Globalization and Human Security		X	Emerging issues of human security in the globalized world, including personal human security, physical integrity, human trafficking, global climate change, food. Challenges of these complex human security problems for a multi-scalar system (international, national, local).
Soc Sci	Globalization and Transnational Sociology		X	Examines globalization and international issues from the perspective of sociology and related fields. Issues include economic globalization and global inequality, international environmental problems, international politics, trends in global culture, and global conflict.
Soc Sci	History of Anthropological Theory		X	Provides foundational knowledge in the discipline of anthropology by reviewing competing approaches in anthropological theory, from the nineteenth century to the present. Covers historically fundamental approachesùsocial evolutionism, functionalismùand recent movements such as feminism, cultural studies, poststructuralism, and postmodernism.
Soc Sci	HIV/AIDS in a Global Context	X		Examines issues concerning cultural conceptions of HIV infection and disease worldwide. Topics include treatment and prevention, identity and behavior, risk, ethnicity, gender, youth, sexuality, activism, drug use, illness, religion, the clinical encounter, national belonging, and the pharmaceutical industry.
Soc Sci	Human Rights		X	Examines the causes and consequences of human rights violations with a focus on Latin America. What are human rights? When and where are they violated? What political mechanisms are available to deal with human rights problems? How effective are they?
Soc Sci	Humans and Other Animals		X	Explores peoples' relationships with other animals, a topic that continues to shape anthropological understandings of humanness, culture, and the social. Subthemes: symbol and matter, nature/culture, ontologies, relations, moralities, ecologies, futures.
Soc Sci	Immigration and Inequality		X	Explores immigration, ethnicity, and inequality as interconnected social forces. International migration, propelled by global inequalities, plays a central role in the formation of multinational societies, shapes inter-group relations and patterns of ethnic inequality, and transforms the immigrants themselves.

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Soc Sci	Immigration and Social Policy		X	Explains how people decide to migrate and how they are incorporated into a host society (both historically and currently), examines the effects of immigration on the U.S., analyzes how the framing of immigration shapes the discourse about the issue.
Soc Sci	Immigration Politics in Western Europe		X	Examines immigration politics in Western Europe, analyzing trends and policy from the postwar period through to today. Topics include citizenship, immigrant integration, asylum, the far-right, and a rotating focus on contemporary issues, e.g., terrorism, Islamophobia.
Soc Sci	Indian North America		X	A survey of indigenous peoples in North America: American Indians, Alaska Natives, First Nations, Native Americans. Tribal populations and geographic distributions, political and social organization, sovereignty, self-determination, intergovernmental relations; cultural continuity and change; management, preservation, development of environments/resources.
Soc Sci	Intermediate Geographic Information Systems		X	Expands Geographic Information Systems (GIS) skills to more advanced theories and concepts in the spatial analysis of social science issues and particularly to analyzing and interpreting spatial data. Students develop and complete a GIS research project of their own choosing.
Soc Sci	International Business		X	Introduction to conducting business in the international arena, decision making in the organization, and globalization of markets and production. Topics covered range from tax and finance to ethics, marketing, and more. Continuing corporate regulatory scandals discussed.
Soc Sci	Introduction to Biological Anthropology		X	Evolutionary theory and processes, comparative primate fossil record, human variation, and the adequacy of theory, and empirical data.
Soc Sci	Introduction to Chicano/Latino Studies I		X	An introduction to the study of the historical foundations of the Chicano/Latino experience. Addresses such topics as empire, migration, immigrant settlement, economic integration, race, gender, and the formation of group identities.
Soc Sci	Introduction to Chicano/Latino Studies III		X	Examines contemporary public policy issues in Chicano/Latino communities. Each offering addresses at least three of the following themes: migration, immigrant incorporation, identity construction, language policy, health policy, politics, sexuality, gender, labor, class, and education.
Soc Sci	Introduction to Contemporary Middle East Politics		X	An overview of basic issues that shape the politics of the Middle East and North Africa. Themes include implication of the colonization era, nation-state formation, inter-Arab relations, nationalism, Arab-Israel conflict, Islamic resurgence, and more.
Soc Sci	Introduction to Economics		X	An analysis of the problems society faces in organizing itself to provide goods and services. How decisions of government, business, and the individual relate to current economic problems such as unemployment, inflation, poverty, and environmental pollution.
Soc Sci	Introduction to Human Geography		X	Human behavior in a geographical context. Spatial patterns and organization of the cultural, social, and economic activities of man as imposed on and influenced by the earth's physical setting.
Soc Sci	Introduction to Race and Ethnicity in Political Science		X	Examines major theories that attempt to explain the roles of race and ethnicity in U.S. politics.
Soc Sci	Israel and the World: An Introduction		X	Examines the founding of Israel, its relationship with the Arab world, the role of the international community, and the challenges it faces today.
Soc Sci	Kinship and Social Organization		X	Organization of social life primarily in preindustrial societies. Theories of kinship, marriage regulations, sexual behavior, and social roles. Comparisons of biological, psychological, sociological, and economic explanations of social organization.
Soc Sci	Labor Economics and Human Resources I		X	Labor demand, labor supply, human capital, personnel economics, and other topics.
Soc Sci	Latinos in a Global Society		X	Examines interconnections between diverse Latino groups in the U.S. and the effects of globalization on their social, cultural, and political realities. Topics include immigration, demographics, socioeconomic differentiation, familial relations, political protest/resistance, law and policy, and links to "homeland" issues.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Soc Sci	Latinos in U.S. Politics		X	Comparing the political issues facing Latino groups by examining their migration histories, voting behavior, nonelectoral participation, and policy issues. Latino issues are examined on the national, state, and local levels, including formal representation, immigration, affirmative action, and language policy.
Soc Sci	Law and Society		X	Law and its various roles in society. The nature and meaning of law; legality and power in the American system; law as a mechanism for social change; the role of law in dispute processing, social control, compliance with judicial decisions.
Soc Sci	Law in the Twenty-First Century		X	Examines the complex relationship between law, the social sciences, and modern society. Lectures explore such issues as the interplay between technology and constitutional rights, the impact of science on law, and the evolving roles of attorneys and judges.
Soc Sci	Legal Implications of the Drug Trade		X	Examines United States policy to combat domestic and international narcotics trafficking. Analyzes the national drug policy and program implementation by federal and state agencies. Considers the effects of these policies on our individual constitutional rights and the criminal justice system.
Soc Sci	Medical Sociology		X	Current problems in U.S. health-care system and proposals for reform. Examines financial barriers to access; problem of patient dumping; underinsurance; prenatal and perinatal care; child services; preventative care and needs of the elderly; minorities; low-income people; undocumented.
Soc Sci	Medicine, Food, and Health		X	With anthropological studies of edible things as its foundation, this course explores topics related to the relationship between medical knowledge, eating, and health from a medical anthropological perspective.
Soc Sci	Model United Nations		X	Focuses on simulations of the foreign policy pursuits of selected countries in the international community. Emphasis placed on understanding the rules of debate, as well as the policy positions of the student's selected country in the United Nations.
Soc Sci	Money, Work, and Social Life		X	Sociological perspective on issues related to money and work. Consumption practices and lifestyles, jobs and organizations, issues of money in intimate relations, marriage, and households, illegal work, discrimination, economic globalization are discussed.
Soc Sci	Nationalism and Ethnicity in the Contemporary World		X	An exploration of the concepts of identity, culture, ethnicity, race, and nation through ethnographic cases, with a view to asking larger questions: how do people create nativeness and foreignness? How does "culture" get worked into contemporary racisms and nationalisms?
Soc Sci	Non-Government Organization (NGO) Fundamentals		X	Introduction to non-governmental organizations, including their role in U.S. society and the international community. Explores varying definitions of NGOs and the characteristics held in common by all NGOs.
Soc Sci	Origins of Liberalism		X	Examines the ideals, social forces, and historical events that gave rise to liberal political theory. Topics include patriarchal authority, the divine right of kings, religious toleration, slavery, colonialism, political economy, the evolution of law, and tensions between liberty and equality.
Soc Sci	People in Society		X	Through readings about people in distinctly different societies throughout history, students learn concepts that cross the boundaries of the social science disciplines. Such themes as democracy, elitism, power, social class, and gender are the basis for discussion and writing.
Soc Sci	People, Cultures, and Environmental Sustainability	X		Anthropological consideration of global environmental sustainability from the perspective of human cultures and communities. Causes and consequences of population growth, natural resource management, environmental law, environmental ethics. Case studies emphasize tropical rain forests, arid lands of Africa and North America.
Soc Sci	Peoples and Cultures of Latin America		X	Surveys the prehistory of Latin America and its indigenous cultures, emphasizing the impact of colonial rule, capitalism, and twentieth-century transformations. Emphasis on communities from several countries. In some years, emphasis on comparisons between the Latin American and Caribbean experiences.
Soc Sci	Peoples and Cultures of Post-Soviet Eurasia		X	Examines the cultures and political conflicts of the more than 130 indigenous ethnic groups in the European and Asian territories of the former U.S.S.R. Emphasis is on the theoretical issues of ethnicity, nationalism, and conflict management.

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Soc Sci	Peoples of the Pacific		X	The cultural history and recent developments among the Pacific peoples of Polynesia, Micronesia, Melanesia, New Guinea, and Australia.
Soc Sci	Perspectives on the U.S. - Mexican Border		X	Economic aspects of the historical development of the United States-Mexican border. The current economic situation in the Southwest and border areas as it affects both Mexico and the Latino/Chicano population is also examined.
Soc Sci	Political Anthropology		X	Utilizes anthropological accounts of Western and non-Western societies to question conventional ways of thinking about power and politics. Classical traditions in political anthropology are critiqued; an alternative view is presented through recent anthropological political analyses of various topics.
Soc Sci	Political Islam		X	Political Islamd is a diverse phenomenon. While noticeable barriers exist to "Islamist democracy," it is the Islamists who will define the political future of much of the Muslim world. Reviews the experience of Saudi Arabia, Egypt, Pakistan, Turkey, and Indonesia.
Soc Sci	Political Participation		X	The ways in which people in various political systems take part in politics, especially in activities directed toward affecting outcomes. Who is active, what they do, why they do it, and what difference it makes.
Soc Sci	Politics of Animal Rights		X	Examines animal rights/welfare movementÆs efforts to transform moral, practical, and legal standing of nonhuman animals in contemporary U.S. Explores intersection of racism, sexism, and speciesism informed by theories of race and ethnicity, including Asian American Studies.
Soc Sci	Poverty, Growth, and Development		X	Examines India as a case study for each of the topics studied: growth experience of India along with its poverty eradication record, aspects of poverty, and the policies that have been undertaken to tackle poverty.
Soc Sci	Principles in the Social Sciences		X	Introduction to various disciplines within the social sciences. Provides an interdisciplinary perspective on understanding human behavior and social institutions, including interpersonal, economic, and cultural activities.
Soc Sci	Protests, Movements, and Revolutions		X	A survey of models of collective action drawn from sociology, economics, psychology, and political science. Focus on areas such as social movements, strikes, crowd psychology, cults, fads, fashions, public opinion, and symbolic and mythical elements in collective culture.
Soc Sci	Public Economics I		X	Examines the role of the government in the economy and its impact on individuals and firms.
Soc Sci	Public Economics II		X	Theory of public goods, externalities, voting models, analysis of bureaucracy, the Tiebout model, income redistribution, intergovernmental grants.
Soc Sci	Race and Ethnicity		X	Focuses on racial and ethnic relations in the United States and compares them with those found in other societies. Analyzes the conditions that favor either cooperation and integration or rivalry, tension, and conflict. Appraises strategies for reducing and resolving conflicts.
Soc Sci	Race, Gender, and Science		X	Perfect for pre-health, science and social science majors wanting to appreciate how science and society interact. Race and gender as biological and socio-cultural constructs are examined. Questions explored: What is disease? What is science? What are social and biological differences?
Soc Sci	Racial and Ethnic Relations in the United States		X	Examines central questions and issues in the field of race and ethnicity; the emergence, maintenance, and consequences of the ethnic and racial stratification system in the United States; the future of racial and ethnic relations; and relevant public policy issues.
Soc Sci	Regional Geography of California		X	Geographical analysis of selected regions of California, in particular geomorphological, hydrological, and climatic conditions, as well as economic and social strengths and weaknesses. May include some fieldwork in Orange County on environmental, social and residential problems, with legislative background information.
Soc Sci	Research Methods in Psychology		X	Research methods in psychology for majors who wish to fulfill this requirement separately from upper-division writing. Covers both experimental and descriptive research methods, analysis of results, and reading the psychological literature. Research experience is provided in laboratory sections.
Soc Sci	Revolution and Social Transformation in China		X	Introduces the major political events in MaoÆs communist revolution and the social transformations afterward. Helps students understand the historic and political landscape from which China is now departing.

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Soc Sci	Science, Technology, Controversy		X	Explores ways in which the social sciences conceive of science as a sociocultural practice. Emphasis on literature in Science and Technology Studies (STS), especially writings that concern the relationship of science to space and place, power, and politics.
Soc Sci	Scientific Realism and Instrumentalism		X	Explores competing views of the character and status of theoretical knowledge in science, including challenges to and defenses of the view that contemporary scientific theories offer straightforward and accurate descriptions of how things stand in otherwise inaccessible domains of nature.
Soc Sci	Social Inequality		X	Sources, functions, and dynamics of the unequal distribution of wealth, prestige, knowledge, and power in American and other societies.
Soc Sci	Social Networks and Social Support		X	Examines the manner in which behaviors/attitudes of individuals are affected by their network ties to others. How are peoples' opportunities and well-being increased/decreased by their social networks? May include studies in mental/physical health, job seeking, separation and loss, and aging.
Soc Sci	Social Policy and Public Service		X	An introduction to the basic theories and principles of public policy. Students examine various influences on the development of public policy and the principle actors in the process, and learn to identify tools and techniques employed in policy making.
Soc Sci	Social Problems		X	Focuses on how institutional and organizational features of societies generate problems for people. Particular attention directed at a set of problems related to political and economic inequality: poverty, racism, sexism, urban and population problems, the environment, the criminal justice system.
Soc Sci	Sociological Lens on Religion		X	Examines the effects of religious beliefs, belonging, and institutions on social dynamics, including class, gender, and racial stratification, politics, and social movements. Additional topics: the sociological significance of conversion, commitment, and secularization/sacralization.
Soc Sci	Sociology of Aging		X	Introduction to sociology of age, aging, and the aged. Problems posed by aging population. Life course transitions and how social organizations influence the life course. Addresses work, health, and family in later life.
Soc Sci	Sociology of Sex and Gender		X	Explores complex processes contributing to social construction of gender and sexuality in the U.S. with focus on intersection of gender, race, ethnicity, sexuality, and class; evaluates how men and women are differentially constituted in family, education, work, politics, media, language.
Soc Sci	Sociology of Sexuality		X	Provides an introduction to and overview of the sociology of sex and sexuality. Considers the social meanings of sex and sexuality, the social contexts of sex and sexuality, and the social regulations of sex and sexuality.
Soc Sci	The Industrial Revolution in Western Europe		X	How do economists explain the process of economic development during the past three centuries? How has the process of industrialization affected living standards? In focusing on these questions, students will learn how to apply economic theory and quantitative methods.
Soc Sci	The International Relations of East Asia		X	Surveys various aspects of relations between the nations of East Asia. Topics include the historical development of the region; current political and security relations, including the impact of the American military presence.
Soc Sci	The Internet and Public Policy		X	How the Internet works. Current public policy issues concerning the Internet. Introductory economics. Communications law. Interactions between information technology, economics, and law. Case studies about Internet and communications policy.
Soc Sci	The Nature of Scientific Inquiry		X	Investigates the nature, scope, and status of scientific knowledge and the methods used to acquire it. Uses concrete historical examples from a variety of scientific fields to identify distinctive features of the scientific enterprise and explore their significance.
Soc Sci	The Politics of Protest		X	Examines the Civil Rights, Black Power, and womenÆs movements in relationship to the Asian American movement. Uses social movement theories to illuminate the cases, and the cases to critique and revise the theories.
Soc Sci	The United States Congress		X	Does the Congress do a good job of representing the American citizenry? Is it the most appropriate mechanism for the creation, resolution, and implementation of public policy?

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Soc Sci	Transnational Migration		X	Examines the movement of people across national borders, governmentality and the role of state practices to control populations, and issues of citizenship, belonging, and identity. Examples are drawn from the United States, Europe, Latin America, Asia, and Africa.
Soc Sci	U.S. Coercive Diplomacy		X	Examines the theory of compellence and the U.S. practice of coercive diplomacy--the power to change behavior of other governments. Specific case examples: the Cuban missile crisis, bombing of North Vietnam, the Nicaraguan Contras, Desert Shield/Desert Storm, and Libya.
Soc Sci	U.S. Foreign Policy I: Globalism and Cold War		X	Looks at changing international perspectives, policy responses, and military strategies of presidential administrations from Truman to Reagan. In assessing the motives and objectives of U.S. foreign policy leaders during the ôCold Warö era, the concept of ônational interestö is examined.
Soc Sci	U.S. Immigration Policy		X	Examines selected immigration policy debates since the nineteenth century, rationale and consequences of immigration law since 1965, problems of administration, implementation and enforcement, impact of immigration policy on foreign relations, and contemporary debate regarding the future of U.S. policy.
Soc Sci	Urban America		X	Students examine the historical, social, political, and economic factors that contributed to the construction of the American urban context, one that is poverty concentrated and racially/ethnically segregated. Students also critically assess the consequence of growing up in America's urban neighborhoods.
Soc Sci	Urban Anthropology		X	Cultural roles of urban centers and processes of urbanization in comparative perspective, focusing on both nonwestern, nonindustrial societies of past and present; the relationship between modern urban centers and Third World peoples. Migration, urban poverty, in Africa, Asia, Latin America.
Soc Sci	Urban Economics I		X	Why cities exist, economics of urban land-use, housing demand and tenure choice, traffic congestion.
Soc Sci	Urban Economics II		X	Housing policy analysis, urban public goods and services, crime, pollution, urban amenities.
Soc Sci	Urban Politics and Policy		X	Examines economic limits of cities and welfare policy. Addresses such issues as why are the poor concentrated in the central cities? Which anti-poverty programs will work best in cities? Which level of government can best combat poverty in the U.S.?
Soc Sci	US & World Geography		X	Survey of general geographical principles and facts on a world scale, as well as introduction to the broad regional and resource geography of the U.S., emphasizing in particular the interactions of physical and cultural factors.
Soc Sci	World of Coffee		X	History of consumption and production of coffee over the centuries, and coffee's cultural, economic, social, political consequences. Coffee's social life as a drug, symbol of hospitality, religious rite, sociability and bourgeois lifestyle, commodity, source of livelihoods, imperial revenues, corporate profits.
	Total Social Sciences	7	108	
Social Ecology	Chicano Movement		X	Explores the history of Mexicans in the U.S. with particular attention paid to their integration into the U.S. capitalist economy. Examines this economic history and the Chicano movement, "El Movimiento," within the wide context of socio-economic change.
Social Ecology	Chicano/Latino Social Psychology		X	Examines theories, research, and major issues of relevance to understanding social psychological processes in Chicano/Latino populations. Topics include social development, cultural orientations, gender and sexuality, close relationships, happiness and well-being, stereotyping, prejudice and discrimination, and mental and physical health.
Social Ecology	Cities and Food	X		Explores the role of cities in transforming global diets: how urbanization has shaped what and how we eat, and what the co-evolution of diets and city life portend for the future.
Social Ecology	Community Context of Crime		X	Examines the social context of high-crime communities, with special emphasis on the problems of poverty, joblessness, economic inequality, and racial discrimination. Assesses debates on the causes of these problems, and on the most effective policies to combat them.
Social Ecology	Cultural Ecology and Environmental Design		X	Introduction to cultural ecology and environmental and architectural design. Addresses the understanding of peopleÆs relationships with their built environments, the basic elements of architecture, architectural analysis, and cultural analysis are covered. Examines values in design and design for multicultural societies.

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Social Ecology	Culture Change and the Mexican People		X	Reviews culture contact and colonization, innovation diffusion, acculturation, assimilation, culture conflict and marginality, modernization, urbanization, legal transformations. Mexico and the Southwestern U.S. are reviewed through several centuries to better appreciate the indigenous base of the Mexican people.
Social Ecology	Drugs, Crime, and Social Control		X	Drug abuse in the U.S.; the psychopharmacology of various drugs; biological, psychological, and sociological explanations for drug abuse. Policy issues are discussed; students will develop and defend a set of strategies for limiting harm done by drugs and drug laws.
Social Ecology	Elements of Environmental Design		X	Basic elements of environmental design such as scale, proportion, rhythm, color, sound, lighting, surfaces, texture, architectural definition of spaces, volumes, massing volumetric analysis, solids and voids, and cultural aspects of design. Excitement and creativity in design, imageability.
Social Ecology	Environmental Hazards in an Urbanizing World		X	Development patterns, including urbanization, can contribute to environmental hazard severity. Humans can plan, mitigate, and prepare to reduce costly hazard losses. Students learn about environmental hazards and human response to these threats.
Social Ecology	Environmental Law and Policy		X	Environmental law as a combination of traditional legal principles and newly created statutes, rules, and decisions applied to environmental protection. Investigates roles of courts, legislature, executive branch and administrative agencies, and private citizens attempting to regulate environmental quality.
Social Ecology	Environmental Sustainability I	X		Provides an introduction to sustainability from different points of view; historical, scientific, political, ethical, and economic.
Social Ecology	Environmental Sustainability II	X		Investigates how sustainability can be implemented in a variety of contexts including water, energy, non-renewable resources, biodiversity, and urban policy, and also how it could be measured.
Social Ecology	Error and Bias in Social Judgement		X	Examines how people encode, reason about, and remember social information and explores how biases and shortcomings in social perception, judgment, and memory are central to understanding both effective social functioning and many forms of maladaptive behavior and social conflict.
Social Ecology	Foundations of Community Health		X	A social ecological framework for understanding community health is presented. Measures of individual and community health are compared, and the influence of personal and environmental factors on individual, group, and population health is examined. Community health promotion strategies are discussed.
Social Ecology	Gender and Social Control		X	Examines the legal system's use of sex as an organizing characteristic, focusing particularly on sameness and difference feminism, and tracing the evolution of equal treatment of men and women in the areas of constitutional rights, employment, education, and military service.
Social Ecology	Global Poverty and Inequality in the 21st Century		X	Explores a multidisciplinary understanding of poverty and inequality in the 21st century and assesses impact of education, health, technology, and other interventions. Course offered online only.
Social Ecology	Health and the Latino Paradox		X	Examines research and theories concerning the physical and mental health of U.S. Latino populations. Contemporary accounts, health care implications, and new directions for understanding sources of risks and resilience for health in Latino populations are evaluated and discussed.
Social Ecology	Health Policy		X	Considers social and economic aspects of health and disease in the United States. What are the proper roles of the individual, community, and government in improving health and health care? International comparisons will be made wherever possible.
Social Ecology	Human Development and Cross-Cultural Perspectives		X	Human development in diverse cultures (e.g., Asian, American, and African). Special emphasis on East-West contrasts and when East meets West (i.e., Asian-American experiences). Topics include parenting, family relations, language and cognition, schooling and academic achievement, and morality.
Social Ecology	Human Ecology	X		Explores the interaction of social choice and physical constraint in shaping the earth's human carrying capacity, including ramifications for local, regional, or global environmental issues.
Social Ecology	Immigration and Crime		X	Examines immigration and crime in the global context, highlighting immigrants as criminals and victims; immigration and crime control; immigrantsÆ perceptions of the criminal justice system; public discourse and public perception on immigration and crime; and human rights issues.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Social Ecology	International Divided Cities		X	Investigates urban divisions in international cities where deep-seated nationalistic ethnic differences create pressures for intergroup conflicts, autonomy, or territorial separation, and can incite violence. Urban political polarization as it is manifest in the urban setting.
Social Ecology	Introduction to Environmental Analysis and Design		X	Overview of general concepts, theoretical principles, and analytical techniques for investigating environmental systems. Integrates tools from natural and social sciences to analyze contemporary environmental challenges such as pollution, resource acquisition, facility and ecosystem design, impact assessments, formulation of environmental policy.
Social Ecology	Introduction to Urban Studies	X		Introduces the substantive areas, concepts, and tools in the field of urban studies. Acquaints students with physical, environmental, social, economic, and political dimensions of cities. Examines the challenges facing cities, including poverty, sustainability, development, globalization, and others.
Social Ecology	Latino Metropolis		X	Explores the processes of Latino urbanization in the United States and the spatialization of Latino identities, particularly in the context of Southern California with selected comparisons drawing from other cities.
Social Ecology	Latinos and the Law		X	Examines a range of theoretical, empirical, and policy approaches to legal issues affecting the Latino population, with emphasis on California. Discusses topics concerning the purpose of law, the creation of law, and the enforcement of law.
Social Ecology	Law and Inequality		X	Various aspects of the law as related to three specific areas of inequality: immigration and immigrants, race, and gender. The role of law as a tool of social reform and limitations of the legal system historically in resolving inequality issues.
Social Ecology	Law and Modernity		X	The rise and spread of Enlightenment legal traditions, social contract theory, individual rights, ideologies of "liberty, equality, fraternity"; contradictions of liberal law, its understandings of "primitive" and "civilized"; pervasive myths of property, difference, race, and rights. Reading- and writing-intensive.
Social Ecology	Legal Sanctions and Social Control		X	Examination of criminal sanctions as mechanisms of social control. Includes the nature, function, and organization of courts as sanction generating institutions, and problems associated with punishing white-collar and corporate illegalities.
Social Ecology	Moral Development and Just Communities		X	A three-quarter sequence exploring interpersonal, personal, and social issues based on principles of fairness and justice. Both the living environment of a University residence hall and selected institutions of society are analyzed in terms of moral development theory.
Social Ecology	Nuclear Environments		X	Understanding the impact of the nuclear age on the environment and human health through interrelated developments of nuclear power and nuclear weapons. The early years of weapon development, catastrophic environmental pollution, perils of nuclear power in the U.S. and Russia.
Social Ecology	Poverty in Developing Countries		X	Focuses on poverty in developing countries. Analyzes the magnitude and changing nature of poverty in the global south. Critically examines poverty conceptualized in terms of economic deprivation, well-being, and social exclusion.
Social Ecology	Power, Constructions of Deviance, and Social Control		X	Examines the forms and limits of power in the construction of social deviants. Theories of state power are covered to understand the prison system as a contemporary driver of social inequality. The collateral consequences of mass incarceration are discussed.
Social Ecology	Public Policy Analysis		X	Examines different approaches to the analysis of public policy, what constitutes good policy, the role of government, and citizen participation in policy-making. Suggests a policy-design perspective which builds upon other frameworks but concentrates on goals, implementation structures, tools, and rationales.
Social Ecology	Public Policy and Management		X	Exposes students to best management practices that assure effective planning and implementation of policies and programs in government, business, and nonprofit sectors. Includes guest lecturers who are proven leaders in four principal institutions of community: business, education, government, and nonprofit.
Social Ecology	Race and Incarceration		X	Examines the racial politics of mass incarceration through historical, empirical, theoretical, and legal frameworks. Focuses on race, gender, and sexual differences to develop a critique on policing, incarceration, and other forms of punishment.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Social Ecology	Race, Ethnicity, and Social Control		X	Provides a historical and sociological survey of racial and ethnic group relations in contexts of crime control, emphasizing the roles of racial ideology, structural racism, and social movements in shaping these dynamic relations, and their significance to American liberal democracy.
Social Ecology	Social Epidemiology		X	Overviews evidence linking environmental factors to mental and physical disorders including such variables as socioeconomic status, income inequality, work stress, job loss, social capital, location, and other demographic characteristics. Measurement and research design issues of both individual and aggregate levels.
Social Ecology	Statistical Analysis in Social Ecology		X	Introduction to the techniques of statistical analysis in Social Ecology. Topics include probability, statistical inference, significance testing, univariate descriptive statistics, and multivariate analysis from an interdisciplinary perspective.
Social Ecology	The Psychology of Gender		X	Discussion of gender identity development and examination of gender differences and similarities across the life span. Consideration of the biology and psychology of gender in relation to physical, behavioral, personality, and intellectual capabilities.
Social Ecology	Urban Design and Graphics Studio		X	Introductory course organized around a variety of assignments to encourage learning by design in a studio setting. Students work on design projects and graphic representation assignments to learn practical aspects of urban design.
Social Ecology	Urban Design Principles		X	Introduction to principles of urban design and its applications. Study of contemporary and traditional theories of urban design formulated to improve physical characteristics of built environment to facilitate an enhanced quality of life. A variety of case studies are discussed.
Social Ecology	Urban Public Policy		X	Examines why and how urban policies are enacted and carried out in contemporary U.S. cities and regions. Topics include evolution and organization of city governments and policymaking over the past century; who directs public policy and controls how cities develop.
Social Ecology	Urban Sociology		X	Overview of theoretical, substantive, and policy issues in urban sociology. History of urbanization, the school of human ecology, and recent trends regarding urbanism. Time is devoted to understanding the causes and possible solutions to urban problems.
Social Ecology	Water Resource Policy	X		Examination of contemporary water problems worldwide, with particular attention to the competing water demands in the western U.S., and water demand by the poor in developing countries. History and analysis of U.S. water policies at local, state, and federal levels.
Social Ecology	Work and Family		X	Effects of employment and unemployment on mental health and marital quality; effects of work on parenting and child development; corporate and social policies for "families that work"; young adults' decision-making about work and family.
	Total Social Ecology	6	40	
U/U	Doing Research in the Community		X	Critically reimagines the research endeavor and its participants/outcomes. Grapples with methods, values, and relationships involved in research. Explores alternative conceptions of research; focus is community-based. Students work in teams on real-world community research projects with faculty mentors and community partners.
U/U	Engaged Leadership		X	Three-quarter series on civic education theory, the civic mission of higher education, and community-based action research methods. Provides students with a solid grounding in civic education theory while also creating opportunities for students to practice civic habits.
U/U	How Race Is Made I		X	Introduces students to an examination of how race is "made" in America and the consequences of this construction through a variety of lenses: historical, legal, anthropological, sociological, and pop culture.

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U/U	Introduction to Civic and Community Engagement		X	Provides a foundation for understanding the role of public scholarship, civic engagement, and social action, and the relationship between service learning and engaged citizenship. Introduces key theoretical and research methodologies on the traditions and innovations of civic and community engagement.
U/U	Introduction to Global Sustainability I	X		Introduces Earth as a system and living planet. Examines physical and biological resources as well as energy, water, climate, and ecosystems. Introduces and applies analytic lens of environmental, social, and economic sustainability to examine human impacts and resource use.
U/U	Student Participation		X	Campus projects with a University department to enrich academic growth and development as well as academic growth and development of UCI. Includes 30 hours per quarter working on proposed project under faculty/staff supervision. Paper required.
U/U	Study Abroad Experiential Learning		X	Study abroad on an approved program. Complete critical reflection (written paper, blog, etc.) submitted no later than the end of the quarter following the completion of the study abroad program. Enroll while studying abroad or the quarter immediately following return.
U/U	Water I		X	Introduces students to water as a global and contested resource across space, time, and peoples from a scientific, historical and policy perspective. Wherever possible, examples are drawn from the local environment.
U/U	Water III		X	Introduces students to water as a global and contested resource across space, time, and peoples from a scientific, historical and policy perspective. Wherever possible, examples are drawn from the local environment.
	Total U/U	1	8	
Arts	3D Methods and Materials		X	Presents a wide variety of concepts, materials, tools, and fabrication techniques vital to art production. Wood tools, clay, castable rubber, urethane foam, fiberglass, plaster, steel, and welding are introduced. Projects are based on conceptual problems incorporating these materials. Materials fee.
Arts	Art, Design, and Electronic Culture		X	Introduction to historical and theoretical foundations of digital media art, tracing how information technologies seeded growth of new expressive medium. Considers how today's pervasive digital culture evolved through interdisciplinary collaborations between artists, engineers, scientists, scholars.
Arts	Art, Science and Society: Steam to Steampunk		X	An overview of current practice and research in digital media art. Examines the effects of recent technological, scientific, cultural, and political developments. Addresses the increasing overlap of artistic and scientific practices and issues related to new and emerging technologies.
Arts	ArtsCore		X	An introduction to the arts in general, and to the arts at UCI. Concentration on (1) the interdisciplinary nature of the arts, and (2) the content of particular arts disciplines.
Arts	Basic Sculpture		X	The practice of sculpture in the contemporary arts; inclusion of spatial interventions, site-specific and environmental design, appropriation of found materials; techniques in cutting joining, and assembly of wood, metals, and plastics. May include casting, welding, and ceramics.
Arts	Critical Aesthetics		X	Surveys critical thought that has influenced twentieth-century art production, preparing the student to engage contemporary art with a critical eye, specifically addressing aesthetic and political debates of the historical avant-garde, the neo-avant garde, and postmodern culture.
Arts	Gizmology and Kinetics		X	Provides students with basic skills in materials, construction and design applicable to making machines, musical instruments and things with moving parts enabling work in kinetic sculpture, custom interactive systems, Mechatronics, Robotics, and Maker/DIY culture.
Arts	Intelligences of Arts		X	Introduces contemporary neuroscience and new approaches to cognition u embodied, enactive, extended, situated, distributed. Reviews the history of related ethological, biological, psychological, technological, and philosophical traditions. Considers arts and cultural practices from these and other perspectives, and considers case studies.

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Arts	Intermediate Ceramic Sculpture		X	Further investigation of the use of clay as a medium, with an emphasis on experimental practice and the relationship to contemporary visual art. Emphasizes discussion of ideas, and provides information on clay body, fabrication, glazing, and firing.
Arts	Issues in Media and Migration: Asia		X	Media and migration are profound, twinned influences on contemporary globalized experience. A discourse on Asian cultural production and of its transnational dimensions. Students will explore migration in its multiple facets to include migrations of people, ideas, and technologies.
Arts	Place Making and Public Art		X	How do art interventions in public spaces inform our definition of "place" and develop culturally informed audiences? Students will engage in class projects and group investigations that question the traditional and institutional conceptual boundaries of exhibition/distribution.
	Total Arts	0	11	

Graduate Courses

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Arts	Total Arts	0	0	
Bio Sci	Topics in Systems Biology		X	Studies in selected areas of Systems Biology.
Bio Sci	Research in Ecology and Evolutionary Biology		X	Individual research with Ecology and Evolutionary Biological faculty.
Bio Sci	Graduate Tutorial in Ecology and Evolutionary Biology		X	Advanced study in areas not represented by formal courses. May involve individual or small group study through reading, discussion, and composition.
Bio Sci	Quantitative Methods in Ecology and Evolutionary Biology		X	Statistics for ecologists and evolutionary biologists. Emphasis on specific applications and underlying assumptions rather than on methods of calculation. Topics include experimental design, parametric and nonparametric methods, analysis of variance and covariance, and multiple regression.
Bio Sci	Advanced Topics in Evolutionary Biology		X	Content and instructor will vary from quarter to quarter. Possible topics include quantitative genetics, experimental methods of evolutionary studies, mathematical modeling in evolutionary studies, and the evolution of genetic systems.
Bio Sci	Advanced Topics in Ecological Genetics		X	Content and instructor will vary from year to year. Possible topics include coevolution, sex-ratio evolution, evolution senescence, plant population biology, and density-dependent selection.
Bio Sci	Advanced Topics in Ecology		X	Weekly discussion of current topics in ecology at the graduate level.
Bio Sci	Topics in Microbial Ecology		X	Weekly discussion of current topics in ecology, biogeochemistry, evolution, and physiology of microbial organisms.
Bio Sci	Plant Diversity in a Changing World	X		Investigation of plant diversity in California and throughout the world, including basic systematic concepts, introduction to major groups of flowering plants, and the effects of global biological change on plant diversity. Students carry out a phylogenetic analysis using appropriate software.
Bio Sci	Curriculum and Methods for Elementary School Science		X	Prospective elementary teachers learn how to teach science in grades K-8. Covers States science requirements, a variety of teaching methods, criteria for selecting science curriculum materials, and how to plan science lessons, units, experiments, projects, and demonstrations.
Bio Sci	Ecological and Evolutionary Physiology		X	A summary of information in organismal biology, comparative and ecological physiology, and the biophysical basis of organismal function. Course offered every other fall.
Bio Sci	Science Communication Skills		X	Development of effective communication skills, oral and written presentations. Topics range from the art of creating keynote slides to strategically crafting a personal story, culminating in a live presentation to an invited audience.
Bio Sci	Evolutionary and Ecological Principles in Medicine		X	Explore the dynamics of populations on an ecological, epidemiological, and medical level. Considers the dynamics of competition, predation, and parasitism; the spread and control of infectious diseases; and the in vivo dynamics of viral infections and the immune system.
Bio Sci	Topics in Evolutionary Genetics		X	Weekly discussion of recent research on evolutionary genetics.
Bio Sci	Plant Physiological Ecology		X	Provides a summary of information on plant organismal biology, comparative and ecological physiology, and functional ecology. Offered every other fall.
Bio Sci	Experimental Evolution		X	Explores experimental evolution, which is now a well-established part of evolutionary biology. With the advent of genomics, it is now one of the most powerful tools for studying the genetic foundations of biology.
Bio Sci	Epigenetics in Health and Disease		X	Focuses on the role of chromatin/nuclear structure organization (histone and DNA modification, chromatin remodeling, higher order chromatin structure and nuclear organization) on gene regulation, DNA replication and repair, relevant to development, metabolism, learning and memory, and human disease.
	Total Bio Sci	1	16	
Business	Consumer Behavior		X	Examines the consumer decision-making process with an emphasis on application of concepts and research findings from behavioral sciences for solution of marketing problems. Includes models of consumer decision-making, information processing theories, and sociological influences on consumer decision-making.
Business	US Health Policy		X	Provides an overview of US health policy with a particular emphasis on current policy developments and debates. Students will be introduced to the basic tools of policy analysis and will apply them to health policy issues.
Business	Business Dynamics		X	Enhances students' analytical skills by analyzing complex challenges that businesses face and to quickly implement a winning response.
Business	Supply Chain Management		X	Introduces students to the tools and strategies to effectively match supply and demand. Focuses on the coordination of material and information flows in supply chains. Recent innovations are also discussed, including globalization, the impact of electronic commerce, and sustainability issues.
Business	Edge		X	Edge explores the crucial roles of external forces - globalization, technology, shifting demographics - as transformative catalysts for change - opening markets, erasing boundaries, and transforming industries. This course prepares future business leaders to innovate and compete successfully.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Business	Ethics in Accounting and Business		X	Designed to introduce students to the intellectual principles of ethical decision making by emphasizing the theories of ethics and their application in the business, and specifically, accounting professions. MPAC capstone course with a final comprehensive exam for the program.
	Total Business	0	6	
Education	Design of Learning Environments for Teachers in Secondary School Subjects		X	Research on comprehension, conceptual understanding, reasoning, critical thinking, and problem solving with applications to pedagogy in secondary school subjects. Required for M.A.T. single subject students, unless substitution of Education 207 is authorized.
Education	Learning, Development, and Culture		X	Explores issues of learning and development through a cultural lens. The interplay between culture and learning and culture and development is analyzed through the discussion of relevant readings from both psychological and anthropological research traditions.
Education	Educational Policy and Politics		X	An in-depth study of topics relevant to educational reform and policy-making. Topics include: the policy-making process, the role of values and interest groups, policy analysis, equality of educational opportunity, systemic reform, implementation, and politics at the school site.
Education	College Access and Persistence		X	Introduction to how social, political, and economic forces impact college access and persistence in the U.S. higher education system. Investigates historical perspectives and theoretical underpinnings of college access and retention research and the link between Kû12 schooling and postsecondary stratification.
Education	Immigration and the New Second Generation		X	Focuses on Asian, Latino, and Black children of immigrants. Investigates how today's second generation adapts, incorporates into the U.S. social structure, transforms the social and economic landscape. Explores assimilation, immigrant families/communities, language, racial/ethnic identities, gender, education, changing U.S. racial structure.
Education	Social and Cultural Foundations of Education		X	Provides a critical understanding of the social and cultural foundations of education through reproduction theory. Explores the unique ways in which culture and power intersect within schools and schooling systems to reproduce and resist educational inequality.
Education	Health Principles and Practices for the Elementary Teacher		X	Methods for creating healthy environments for student learning in elementary schools. Introduction of California content standards and frameworks with appropriate pedagogy. Personal, family, school, community factors, and legal responsibilities of teachers. Academic, physical, emotional, and social well-being.
Education	The History and Culture of Schooling in the United States		X	Considers the historical, cultural, and structural processes that contextualize American schooling. In particular, examines the roles of race, class, and gender in the context of public education in the United States.
Education	Creating a Supportive & Healthy Environment for Student Learning in Secondary Classrooms		X	Creation of healthy environments for student learning in secondary classrooms. Personal, family, school, community, environmental factors. Academic, physical, emotional, social well-being of students. Legal responsibilities of teachers related to student health, safety. Communication with family and use of community resources.
Education	Culture, Diversity, and Educational Equity		X	Survey of the history of and social theories about the origins and consequences of U.S. racial, gender, and social inequality, and the effects of poverty and racism on the educational opportunities and outcomes of minority groups in the United States.
	Total Education	0	10	
Engineering	Microscale Tissue Engineering			Engineering of physiological function at the scale of individual cells. Topics include cell micropatterning, microfluidic tissue culture, engineering the cellular microenvironment, and microphysiological systems.
Engineering	Urban Transportation Networks II		X	Advanced analysis, optimization, and modeling of transportation networks. Topics include advanced static and dynamic traffic assignment algorithms, linear and nonlinear multi-commodity network flow optimization, network simplex, and network control problems.
Engineering	Traffic Systems Operations and Control I		X	Introduction to operation, control and analysis of arterial and freeway traffic systems. Control concepts, traffic stream principles, detectors, local controllers, system masters, traffic signal and ramp metering timing principles, traffic measurement technologies, traffic delay principles.
Engineering	Desalination		X	Introduction of state of technology, costs and benefits, environmental issues, and implementation issues related to desalination. Emphasis on membrane processes and biofouling prevention.
Engineering	Applied Environmental Microbiology		X	Microbes in the environment and their impact on human interactions. Microbiological application in solving environmental engineering problems.
Engineering	Analysis of Hydrologic Systems		X	Application of systems theory in hydrologic, land surface, biogeochemical modeling. Design, identification, and calibration of conceptual models. Principles of dynamic systems, modeling approaches, theory of linear systems, mathematical concepts of differential calculus, theoretical concepts of parameter estimation and optimization theory.
Engineering	Energy Efficiency	X		Green energy sources for production, transmission, storage, and utilization of electricity, with a special focus on solar, wind, and nuclear energy production. Study of newly developed renewable sources of energy including capital cost, product cost, environmental issues, and technical feasibility.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Engineering	Hydrology		X	Elements of the hydrologic cycle including precipitation, infiltration, evapotranspiration, ground water, and runoff. Unit Hydrograph theory and routing methods. Introduction to precipitation/runoff relationship and watershed modeling. Statistical methods and flood frequency analysis. Discussion section covers advanced topics.
Engineering	Low Power SoC Design		X	From an inverter to server centers, low-power design theory and practice in modern systems-on-chip (SoC), energy efficient design time and runtime methods are surveyed at circuit, RTL, and architecture levels. Lab assignments will help students quantify tradeoffs and design practices.
Engineering	Carbon and Energy Footprint Analysis		X	Process design for wastewater treatment. Mass- and energy- balance analysis applied to water and wastewater treatment systems. Case studies include analysis of water supply, treatment, reclamation, and reuse.
Engineering	Transportation Planning Models II		X	Design and application of comprehensive transportation models. Network development, demand modeling, and equilibrium assignment. Model calibration, validation, prediction, and evaluation. Regional modeling, site impact analysis, and circulation studies. Design of transportation alternatives.
Engineering	Travel Demand Analysis I		X	Fundamentals of transportation systems analysis. Theoretical aspects of travel demand. Travel behavior. Modeling of performance characteristics and costs of transportation modes. In-depth presentation of travel demand modeling techniques. Development of travel choice models including mode, route, and destination choice. Equilibrium.
Engineering	Travel Demand Analysis II		X	Methods of discrete choice analysis and their applications in the modeling of transportation systems. Emphasis on the development of a sound understanding of theoretical aspects of discrete choice modeling that are useful in many applications in travel demand analysis.
Engineering	Travel Demand Analysis III: Activity-based Approaches		X	The methodological underpinnings of activity-based travel demand modeling. Presents methodologies within the context of a generalization of discrete choice modeling approaches, emphasizing the distinctions that separtate these two approaches and presenting appropriate mathematical and statistical tools to address these distinctions.
Engineering	Transportation Systems Analysis I		X	Introduction to mathematical methods and models to address logistics and urban transportation problems. Techniques include stochastic models, queueing theory, linear programming, and introductory non-linear optimization.
Engineering	Transportation Systems Analysis II		X	Advanced mathematical methods and models to address logistics and urban transportation problems. Topics include network flows, advanced optimization techniques, network models, and heuristic algorithms.
Engineering	Transit Systems Planning		X	Planning methods for public transportation in urban areas. Technological and operating characteristics of vehicles, facilities, and systems. Short-range planning techniques: data collection and analysis, demand analysis, mode choice, operational strategies, financial analysis. Design of systems to improve performance.
Engineering	Transportation Systems III: Planning and Forecasting		X	Theoretical foundations of transportation planning, design, and analysis methods. Theory and application of aggregate and disaggregate models for land use development, trip generation, destination, mode, and route choice. Transportation network analysis. Planning, design, and evaluation of system alternatives.
Engineering	Transportation Data Analysis I		X	Statistical analysis of transportation data sources. Analysis of categorical and ordinal data. Regression and advanced multivariate analysis methods such as discriminant analysis, canonical correlation, and factor analysis. Sampling techniques, sample error and bias, survey instrument design.
Engineering	Urban Transportation Networks I		X	Analytical approaches and algorithms to the formulation and solution of the equilibrium assignment problem for transportation networks. Emphasis on user equilibrium (UE) comparison with system optimal, mathematical programming formulation, supply functions, estimation. Estimating origin-destination matrices, network design problems.
Engineering	Traffic Systems Operations and Control II		X	Advanced topics related to operation, control, and analysis of arterial and freeway traffic systems. Control concepts, traffic stream principles, detectors, local controllers, system masters, traffic signal and ramp metering timing principles.
Engineering	Advanced Biological Treatment Processes		X	Analysis of biological processes in natural and engineered systems. Biological treatment processes, both aerobic and anaerobic, with emphasis on suspended growth systems including design consideration. Containment degradation or control covered. Includes laboratory on molecular tools used in wastewater treatment.
Engineering	Physical-Chemical Treatment Processes		X	Theory and dynamics of physical and chemical separation processes in water and wastewater treatment. Topics include coagulation, sedimentation, filtration, gas transfer, membrane separations, and absorption.
Engineering	Drinking Water and Wastewater Biotechnology		X	Water and wastewater microbiology. Engineering principles, molecular aspects, and overview of microorganisms of importance to public health. Topics include aerobic and anaerobic wastewater treatment and disinfection of pathogens in water, wastewaters, and biosolids.
Engineering	Groundwater Hydrology		X	Topics include conservation of fluid mass, storage properties of porous media, matrix compressibility, boundary conditions, flow nets, well hydraulics, groundwater chemistry, and solute transport. Includes introduction to advanced topics in porous media. Design projects and computer applications included.

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Engineering	Watershed Modeling		X	Basic principles of hydrologic modeling are practiced. Concepts of watershed delineation, land use change impact, design studies, and GIS tools are discussed. Focus on the USACE (HEC) software tools (HEC-HMS and HEC-RAS) along with their associated GIS interfaces.
Engineering	Climate Data Analysis		X	Trend analysis; statistical indices for diagnosing and detecting changes in extremes; nonstationary processes; extreme value analysis; multivariate extreme value methods; tail dependence estimation; uncertainties in observed and projected changes in climate extremes.
Engineering	Topics in Coastal Engineering		X	Linear wave theory. Wave properties: particle kinematics, energy propagation, shoaling, refraction, reflection, diffraction, and breaking. Wave statistics and spectra. Selected topics from: design of coastal structures; harbor engineering; littoral transport and shoreline morphology; and hydrodynamics of estuaries.
Engineering	Hydrologic Transport Fundamentals		X	Process description, mathematical and numerical modeling of transport processes in surface and ground water. Topics include advection, molecular diffusion, Taylor dispersion, mechanical dispersion in porous media, shear flow dispersion in channels, and turbulent jets and plumes.
Engineering	Fluid Mechanics of Open Channels		X	Fundamentals of fluid motion in open channels. Navier-Stokes equations and one-dimensional momentum and energy principles. Topics include rapidly varied flow, flow resistance and turbulence, gradually varied flow, unsteady flow, and computational methods for channel flow modeling.
Engineering	Hydrologic Computational Modeling		X	Computational modeling of multi-dimensional flow and scalar transport problems in surface and ground water. Topics include mathematical model formulation, numerical method selection, serial and parallel implementation, model verification and validation.
Engineering	Reaction Engineering		X	Advanced topics in reaction engineering, reactor stability analysis, diffusional effect in heterogeneous catalysis, energy balance, optimization of reactor operation, dispersed in phase reactors.
Engineering	Chemistry and Technology for the Nuclear Fuel Cycle		X	Introduces basic concepts of nuclear chemistry and focuses on chemical engineering aspects of the nuclear power industry. A broad survey of the nuclear fuel cycle (uranium processing, reactor concepts, spent fuel treatment and repositories) will be given.
Engineering	Engineering Electrochemistry: Fundamentals and Applications		X	Introduction to engineering electrochemistry fundamentals and applications. Examine thermodynamics and transport principles in typical electrochemical systems. Electrochemical sensors, batteries, fuel cells, and supercapacitors. Manufacturing aspects will also be covered.
Engineering	Electric Propulsion		X	Space propulsion requirements and maneuvers, stressing those best suited to electric propulsion. An introduction to plasma physics. Electrothermal, electromagnetic and electrostatic accelerators, with emphasis in technologies (ion engines, Hall thrusters and colloidal thrusters) belonging to the latter family.
Engineering	Fuel Cell Fundamentals and Technology		X	Introduction to electrochemistry and electrocatalysis; nature of fuel-cell electrodes and electrolytes; charge transfer reactions at interfaces; charge transport and mass transport processes; fuel processing reactions; determination of fuel cell efficiency, fuel flexibility, emissions and other characteristics.
Engineering	Fuel Cell Systems and Degradation		X	Fuel cell systems design; impacts of operating conditions; experimental and theoretical analysis methods for fuel cells systems; introduction to degradation mechanisms and mitigation techniques; provides broad insight into fuel-cell science, technology, system design and operation. Offered every other year.
Engineering	PEM Fuel Cells		X	An in-depth introduction to the fundamentals of PEM fuel cells, including thermodynamics, kinetics, and transport in electrochemical systems. Topics of specific interest to mechanical engineers will include water/heat management and dynamic responses.
Engineering	Advanced Combustion Technology		X	Pollutant formation and experimental methods. Formation of gaseous pollutants and soot; transformation and emission of fuel contaminants in gas, liquid, and solid fuel combustion; methods employed to measure velocity, turbulence intensity, temperature, composition, particle size; methods to visualize reacting flows.
Engineering	Sustainable Energy Systems	X		Basic principles, design and operation of sustainable energy systems including wind, solar photo-voltaic and thermal, hydroelectric, geothermal, oceanic, biomass combustion, advanced coal and next generation nuclear. Includes power generation, storage, and transmission for stationary power generation.
	Total Engineering	2	37	
Humanities	Contemporary Issues in Asian American Studies		X	Examines the interrelations between history, theory, and race in the aftermath of the twentieth-century decolonial movements, offering an account of race through postcolonial and postnationalist approaches in comparative contexts. Considers the interventions made by transnational feminist and racialized queer critiques.
Humanities	Contemporary Literary Theory and the Classics			An introduction to contemporary literary theory focusing on important critical approaches; topics vary from year to year.
Humanities	Diachronic Perspectives on Classical Antiquity			Examines ways in which Classical texts and ideas have been received and appropriated for the diverse purposes of ancient and subsequent cultures.
Humanities	Greece and Rome in Their Contemporary Cultural Contexts			An introduction to the methods and perspectives of social scientific theory which can be used to study the material and social dimensions of the ancient cultures of Greece and Rome.
Humanities	Theories of Globalization, Inter-Nationalism, and Postcolonialism		X	Addresses both theories and the complex history of literary and cultural expression in a national, trans-, inter-, and post-national, global frame. Topics may include: globalism and nationhood, theories of citizenship and political subjecthood, postcolonial literature and theory.

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Humanities	Feminist Knowledge and Social Change		X	Provides a broad and introductory overview of WomenÆs Studies and feminist knowledge, including key concepts, theoretical frameworks, disciplinary approaches and methods, and critical debates that have shaped the field.
Humanities	South Asia			Studies in literatures and interpretations of South Asian history.
	Total Humanities	0	3	
Phys Sci	Current Issues Related to Tropospheric and Stratospheric Processes		X	Examination of current issues related to the atmosphere, including energy usage; toxicology; effects on humans, forests, plants, and ecosystems; particulate matter (PM10); combustion; modeling and meteorology; airborne toxic chemicals and risk assessment; application of science to development of public policies.
Phys Sci	Climate Change	X		Explores past, present, and projected changes in Earth's climate. Topics include paleoclimate records and mechanisms of natural climate variability at a range of timescales (orbital to seasonal); General Circulation Models; and IPCC observations and projections of future climate change.
Phys Sci	Ocean Processes		X	Introduction to the physics, chemistry, and biology of the oceans. Offers a mechanistic perspective of the structure and functioning of marine ecosystems, nutrient cycles, and role of ecosystem dynamics in local and global biogeochemistry.
Phys Sci	Atmospheric Chemistry and Physics		X	Examines the physical/chemical processes which determine the structure and composition of Earth's atmosphere and its role in the climate system.
Phys Sci	Global Biogeochemical Cycles		X	Global biogeochemical cycling of the elements. Topics include global cycling of carbon, nitrogen, oxygen, and sulfur; impact of human activities on biogeochemical processes.
Phys Sci	Plasma Physics		X	Magnetic confinement, MHD equilibrium and stability, collisional transport.
Phys Sci	Global Physical Climatology		X	A descriptive overview of EarthÆs climate system and energy budget. Large-scale circulations, key physical processes, and climate sensitivity of the atmosphere, ocean, land surface, and cryosphere.
Phys Sci	Global Climate Change and Impacts	X		Observations over the 20th century show extensive changes in atmospheric composition, climate and weather, and biological systems that have paralleled industrial growth. Evidence of globally driven changes in these biogeochemical systems is studied, including projected impacts over the 21st century.
Phys Sci	Marine Ecosystems and Global Change	X		Presents an overview of marine ecosystem structure, diversity, and processes in the context of global change, including the impacts of climate warming, ocean acidification, marine fisheries, and anthropogenic additions of nutrients and pollutants.
Phys Sci	Ice in the Climate System		X	Examines the major components of the EarthÆs cryosphere. Characteristics, volume, extent, remote sensing observations, long-term trends, mass balance, key physical processes, relevance and importance to the climate system, responses and feedbacks, future evolution, and key uncertainties will be discussed.
	Total Physical Sciences	3	7	
Social Science	Anthropology of Food		X	Course examines the role of food in culture history and in anthropological thinking about ethnocentrism, disgust, privilege, gender, race, identities, social relationships, kinship, social hierarchies, globalization, production, consumption, food scarcities, body image, health, and power.
Social Science	Transnational Migration		X	Examines borders and boundaries as material and semiotic constructs. Drawing upon an array of literatures, but loosely situated in U.S. geo/biopolitics, explores transformative troublings of places, spaces, borders, and bodies of all sorts.
Social Science	Economic Anthropology		X	Classic and contemporary theory in economic anthropology. Case studies: Latin America (primarily Mexico and the Andes), Africa, and the Pacific. Substantive topics: non-market exchange, markets and marketplaces, households, gender, management of common property (fisheries, pastoral lands, forests), labor, and development.
Social Science	Approaches to Globalization		X	Historical and contemporary approaches to the world economy, emphasizing anthropological questions of culture, power, identity, inequality. Examines "neo-imperialism," "late capitalism," accumulation, global markets, urban space, the state, business and policy globalization discourse, "local" responses to and instantiations of the "global."
Social Science	Latinos/Latinas and Medical Care: Contemporary Issues		X	Introduction to medical anthropological and social science perspectives on Latinos/Latinas in relation to a number of health and medically-related issues, i.e., immigration, gender, reproduction, culture, social structure, political economy, sexuality, utilization of medical services, and health beliefs.
Social Science	Macroeconomic Theory II		X	Advanced macroeconomic theory including alternative macroeconomic models, microeconomic foundations of macroeconomics, investment and growth theory, inflation and unemployment, rational expectations and macroeconomic policy, wealth effects, crowding out and fiscal policy, money and interest, open economy models.
Social Science	Business Cycles in Historical Perspective		X	Investigates business cycles in the United States and worldwide during the last two centuries. Topics include causes and consequences of business fluctuations, monetary and fiscal policy, models of fluctuations, and empirical macroeconomics.

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Social Science	American Economic History		X	Focuses on American economic history from colonization onwards. Topics include the development of legal systems, transport systems, financial markets, industrialization, migration, immigration, technological change, and the consequences of slavery.
Social Science	Monetary Economics II		X	Surveys recent issues on monetary policy in uncertain environments. Examines settings where both the policy makers and the private sector are uncertain of future outcomes or the underlying economic structure.
Social Science	Advanced Macroeconomics I		X	Students build Dynamic Stochastic General Equilibrium (DSGE) macroeconomic models from microeconomic foundations. This approach emphasizes intertemporal optimization by firms and households and typically incorporates nominal rigidities such as sluggish price and/or wage adjustment.
Social Science	Economics of Government		X	Prepares students to analyze public policy questions with tools from economics. By the end, students should be able to identify important economic issues in public policy debates and consume and critique economic research on these topics.
Social Science	Urban Economics I		X	Economic reasons for the existence of cities, analysis of urban spatial structure, urban sprawl, Third World urbanization, hedonic price analysis, housing tenure choice.
Social Science	Urban Economics II		X	Housing in the portfolio, land-use controls, rent control, homelessness, neighborhood effects, urban quality-of-life measurement, and subcenters.
Social Science	Transportation Economics I		X	Applies microeconomic concepts of demand, costs, pricing, investment, and project evaluation to analyze transportation activities. Empirical studies include travel demand using discrete models, and cost functions.
Social Science	Political Participation		X	Examines theoretical approaches to the explanation of the pattern of participation and consideration of the results of empirical studies of such activity by mass publics (mainly in Europe and North America). Addresses issues in both comparative politics and political behavior.
Social Science	Race and Ethnicity		X	An examination of central questions and issues in the field of race and ethnicity through a critical analysis and discussion of the principal theoretical perspectives and paradigms that have framed much of the scholarship in the area.
Social Science	Inequality		X	Theoretical and empirical approaches to the study of social and economic inequality, with special attention to race/ethnicity, class, and gender.
Social Science	Social Movements		X	A survey of the field of Social Movements, oriented around critical themes in the major theoretical traditions and contemporary exemplars.
Social Science	Sociology of Culture		X	Major perspectives in the sociology of culture. Topics include the role of cultural dynamics in the reproduction of inequality, collective action, political and organizational decision making, emotional experience, and the social impacts of new technologies.
Social Science	Immigrant America		X	The study of the causes and consequences of international migration has become one of the most vital fields of sociological theory and research. Examines principal theoretical perspectives and empirical research on contemporary immigration flows and the processes of incorporation.
Social Science	Immigration and Globalization		X	Examines immigration to three leading immigrant-receiving nations: the United States, Canada, and Australia, as both cause and consequence of globalization. Specific attention to Asian migration, as well as assimilation and its relationship to multiculturalism.
Social Science	Macroeconomic Theory I		X	Advanced macroeconomic theory including alternative macroeconomic models, microeconomic foundations of macroeconomics, investment and growth theory, inflation and unemployment, rational expectations and macroeconomic policy, wealth effects, crowding out and fiscal policy, money and interest, open economy models.
Social Science	Natures and Environments		X	Examines social scientific understandings of natural contexts and human milieus via a survey of key analytic categories. Begins by examining historical and ongoing definitions and problems organized around ônatureö and ôenvironmentö as separate but imbricated concepts.
Social Science	Microeconomic Theory III		X	Theoretical microeconomics. Emphasis on the meaning and empirical interpretation of theoretical models. Topics include theory of the firm, theory of the market, theory of the consumer, duality theory, application to econometrics, general equilibrium and welfare economics, uncertainty, game theory.
Social Science	International Trade I		X	Covers theoretical models, empirical methods, and policy issues in international trade. Following the conventional treatment of the Richardian model, the Heckscher-Ohlin model and the specific factors model, new trade models which incorporate scale economics and imperfect competition will be discussed.
Social Science	Transportation Economics II		X	Economics of the airline industry. Hub-and-spoke networks, the effects of competition on airfares, price dispersion, airline alliances, airport congestion, product unbundling.
Social Science	Replication and Applied Economics Writing		X	Before the course begins, students choose a published empirical economics article and obtain the necessary data to replicate it. Students will replicate and extend the economic analysis and write a paper describing their work.
Social Science	Population		X	Introduces the interrelationships between population and social organization. Considers measurement and explanation of historical and contemporary trends in birth rates, death rates, migration, and marriage and divorce. Case material is drawn primarily from the U.S. and other industrialized nations.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
	Total Social Sciences	0	29	
	Total U/U	0	0	
ICS	Information Technology in Global Sustainability	X		Explores the relationship between recent developments in information technology and the global transition to sustainability. Topics include the role of IT systems in the provision of human needs and wants (e.g., smart grids, food systems, and other IT-enabled infrastructure).
ICS	Theories of Information Society		X	Social and economic conceptions of information technology. Macrosocial and economic conditions that foster changes in information technologies. Social construction of information and computer technology in professional worlds. Theories of information technology and large-scale social change.
	Total ICS	1	1	
Public Health	Foundations of Public Health		X	Presents the overarching framework, principles, and core responsibilities of public health research and practice from a multidisciplinary perspective. Provides necessary foundation for further studies toward advanced cross-cutting approaches essential for public health practice.
Public Health	Graduate Epidemiology in Public Health		X	Presents descriptive and experimental approaches to the recognition of the causal association of disease in the general populations, as these approaches apply to populations using different student designs and models from the literature.
Public Health	Advances in Social Epidemiology		X	Advances understanding of social distribution and social determinants of disease through multiple risk factor models and mechanisms that emphasize developmental and socio-environmental risk factors on mental and physical health across the life span.
Public Health	International Epidemiology		X	Explores methodological approaches in the literature on international trials and requires formulation of proposals to answer public health questions of interest in a developing country setting. Students develop case study aims, ideal teams, and budget in an international context.
Public Health	Surveillance Systems		X	Surveillance as a fundamental element of the practice of public health is examined in terms of the application and evaluation of monitoring systems. Topics include surveillance of infectious and chronic diseases, environmental constituents, and other indicators of population health.
Public Health	Theories of Health Communication		X	Explores the concepts, constructs, and theories of communication in health and risk contexts. Examines interpersonal, family, organizational, and mediated communicative processes about health care and conditions from a global perspective.
Public Health	Health Status and Care Disparities		X	Expert health care providers present viewpoints and interdisciplinary strategies for addressing sociocultural, economic, gender, age, and other disparities in population health status and care provision.
Public Health	Global Burden of Disease		X	Introduces composite measures of disease burden, including Disability Adjusted Life Years and their use in prioritizing disease burden at local, regional, and global levels. Focuses on WHO's landmark assessments and introduces DISMOD software for specific analyses.
Public Health	Infectious Disease Epidemiology		X	Geographical distribution of infectious diseases and the health and disease risk in diverse human populations. Introduces basic methods for infectious disease epidemiology and case studies of important diseases. Includes surveillance, outbreak investigation, emerging pathogens, traditional and molecular epidemiology.
Public Health	Ethics and Responsible Conduct of Research in Public Health		X	Issues of scientific integrity and satisfies the requirements for training in public health ethics. Includes guidelines for responsible conduct of research, federal and international codes, administrative review and approval, conflict of interest, and privacy and safety of research participants.
Public Health	Fundamentals of Maternal and Child Health - Programs, Problems, and Policy		X	Overview of issues facing women, children, and families from a public health perspective. Discusses role of socio-economic, political, biological, environmental factors on population health. Studies historical foundations and current factors impacting Maternal Child Health programs and legislation in the US.
Public Health	Advanced Geographic Information Systems and Spatial Epidemiology		X	Students expand their current knowledge of the ArcGIS software to develop advanced geographic-related research questions, learn how to apply spatial epidemiologic methods to public health data, and integrate their skills in a GIS project of their design.
Public Health	Target Organ Toxicology II	X		Mechanistic analysis of responses occurring in various organ systems of experimental animals and humans exposed to environmental and occupational chemicals and radiation. Review of distinctive cellular and tissue structure and physiological function of the various organ systems.
Public Health	Target Organ Toxicology I	X		Mechanistic analysis of responses occurring in various organ systems of experimental animals and humans exposed to environmental and occupational chemicals and radiation. Review distinctive cellular and tissue structure and physiological function of the various organ systems.
Public Health	Geographic Information Systems for Public Health		X	Provides a broad introduction to the use of Geographic Information Systems software to carry out projects for visualizing and analyzing spatial data to address significant issues of health care and policy-planning.
Public Health	Industrial Toxicology		X	Analysis of responsibilities toxicologists have in industry, including product safety, generating material safety, data sheets, animal testing, ecotoxicological testing, risk/hazard communication, and assisting industrial hygienists and occupational physicians; emphasis on interdisciplinary nature of industrial toxicology and communication skills.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
	Total Public Health	2	14	
Social Ecology	Public Policy, Crime, and Criminal Justice		X	Increases understanding of crime, violence, and the criminal justice system. Assesses the state of knowledge on key policy issues of our time. Discusses the contribution of communities, schools, employment, drugs, guns, and alcohol to crime and violence.
Social Ecology	Social Problems, Law, and Policy		X	Capstone course for M.A.S. program in Criminology, Law and Society. Students choose a social problem related to crime, criminal justice, and law; relate the problem to legal and social issues; and devise a plan of action to research the problem.
Social Ecology	Race, Ethnicity, and Social Control		X	Origins and organization of racialized social control, with emphasis on criminal justice. Racial politics of criminal/juvenile justice considered in comparative (historical and international) perspective. Exploration of theoretical and methodological issues for research on race, ethnicity, and social control.
Social Ecology	History of Urban Planning		X	Introduction to the historical roots and fundamental perspectives of urban and regional planning. Exploration of the significant historical phases and personalities which have shaped the profession. The roles and responsibilities, the limitations and potential, of urban planning.
Social Ecology	Theoretical Foundations of Planning		X	Intellectual excursion into central themes in policy and planning, including philosophy of the market, institutionalization of space, hypostatizations of policy, constructions of communities, logics of spatial analysis. Objective is engagement of the professional in thoughtful reflections on practice and institutions.
Social Ecology	Design and Planning Graphics: Fundamentals		X	Graphic representation and communication of physical place characteristics, design and physical planning ideas and concepts using a variety of graphic techniques of free hand drawing, sketching, orthographic representations, scale drawings, 3D representations, maps, photo-documentation, and various media.
Social Ecology	Microeconomic Analysis for Urban Planning		X	Provides students with a working knowledge of basic microeconomic concepts. Emphasizes applications related to urban planning and policy analysis. Topics covered include demand analysis, firm behavior, market structure, public goods, externalities, and the role of economics in land markets.
Social Ecology	Transportation Planning		X	Introduces current topics in transportation planning. Includes an analysis of the economic role of transportation in urban areas, land-use impacts of transportation projects, traffic congestion, air quality, alternatives to the automobile, and other transportation topics.
Social Ecology	Quantitative Analysis for Planners		X	Introduces students to the basic statistical concepts used to address issues of public concern. Prepares students to perform, interpret, and evaluate quantitative data analyses commonly used in professional studies.
Social Ecology	Analytical Methods for Planning		X	Emphasizes the development of analytical techniques proven useful in the fields of management and administration. Topics include multiple regression, cost-benefit analysis and discounting, decision trees, and other techniques useful for the purposes of community analysis and planning.
Social Ecology	Public Policy		X	Explores different approaches to public policy analysis, the diverse conceptions of the goals and objectives that should be served by policy, and the appropriate role of the policy analyst. Policy consequences are traced to indirect and subtle incentives and disincentives.
Social Ecology	Environmental Politics and Policy	X		Reviews and critiques literature on discussion topics including: the nature and effectiveness of environmental movements and policies; the role of science and technology; the use of economic incentives in policy; decentralization of decision making; and creating arenas for public involvement.
Social Ecology	Transportation and Environmental Health		X	Critically evaluates how transportation can promote sustainable, healthy, and equitable cities. Examines the interaction of transportation systems with urban form, land use, community health, and environmental quality.
Social Ecology	Geographic Information Systems (GIS) Problem Solving in Planning		X	Explores the application of geographic information systems (GIS) in urban planning. Steps through a GIS-based planning procedure that balances housing, jobs, tax base, utilities, transportation, and the natural environment.
Social Ecology	Introduction to Geographic Information Systems		X	Application of Geographic Information Systems (GIS) to the field of urban and regional planning. Emphasizes current issues that occur in actual implementation settings. Lecture/discussion followed by laboratory demonstrating the area of GIS discussed. Offers "hands-on" student usage of GIS software.
Social Ecology	Urban Design Theories and Applications		X	Introduction to contemporary and traditional theories of urban design and their applications. Organized around one question: How might planning and design of built environment contribute to making a good city? National and international case studies are introduced.
Social Ecology	Health Policy and Management		X	Multidisciplinary inquiry into theory and practice concerned with delivery, quantity, costs of health care for individuals and populations. Explores managerial and policy concerns regarding structure, process, outcomes of health services including the costs, financing, organization, outcomes, and accessibility of care.
Social Ecology	Land-Use Policy		X	Examination of the role of public policy in guiding growth and development in urban and suburban environments. Description of a wide-ranging set of growth policies, the rationales underlying their use, controversies and legal constraints, and evaluation of their effectiveness.
Social Ecology	Housing Policy		X	Examines theories and practices of housing policy and the relationship of housing to larger neighborhood, community, and regional development issues. Considers the roles of private for-profit and not-for-profit developers, lenders, and all levels of government in the provision of housing.

School	Title	Sustainability Course	Course That Includes Sustainability	Description
Social Ecology	Poverty and Development		X	Critical examines competing conceptualizations, methods of measurement, and poverty alleviation strategies widely used in developing countries. Focuses on poverty conceptualized as economic deprivation, well-being, vulnerability, and social exclusion.
Social Ecology	Issues in Environmental Law and Policy		X	Treatment of legal and policy strategies for promoting environmental protection and deterring environmental degradation within the context of other societal objectives. Topical approach with a focus on problems of special interest to criminologists and to environmental policy specialists.
Social Ecology	Environmental Ethics		X	Introduction to major themes and debates in environmental ethics, with application to contemporary environmental issues.
Social Ecology	Global Urbanization		X	Examines the spread of cities worldwide in the twentieth century. What are the political and economic causes of this process? What are the social-cultural, political, and economic effects? How is contemporary urbanization linked to global restructuring of other kinds?
Social Ecology	Culture, Community, and Space		X	Covers how cultures relate to natural and built physical environments. Ways in which culture influences space; ways space influences culture. Concepts for understanding the interrelationship, including values, norms, traditions, religion, and place attachment. Culture and cities, urban form, ethnic communities.
Social Ecology	Urban Design Studio for Planners: An Introduction		X	Introductory urban design for planners. Organized around a variety of assignments to encourage learning by design in a studio setting. Students work on design projects and drawing assignments to learn practical aspects of urban design.
Social Ecology	Research Directions in Psychology and Social Behavior		X	Introduces students to the current research of faculty, graduate students, and visitors to the Department of Psychology and Social Behavior. Includes examination of contemporary research issues and controversies, as well as issues related to students' development as professionals.
Social Ecology	Land Use Law		X	Investigates legal and institutional frameworks for development control. Review of constitutional issues implicated in land-use regulation. Traces development control historically and analyzes contemporary approaches to land-use control which reflect environmental and economic development concerns.
Social Ecology	Policy and Ethics		X	Examines the challenge of identifying ethical principles that can guide us in formulating and assessing public policy, the public policy process from an ethical perspective, and the ethics of the individual engaged in the public policy arena.
Social Ecology	Crime and Gender		X	Examines the legal, political, social, economic, and policy implications of making gender (primarily) and race (secondarily) the focus in the study of crime, criminal law, and the criminal justice system.
Social Ecology	Practice Experience		X	Provides Master of Urban & Regional Planning Students an opportunity to link classroom knowledge with real Planning situations through a ten-week unpaid practice experience.
Social Ecology	Information and Public Policy		X	Evaluates strengths and weaknesses of qualitative and quantitative methods and the data used in making public policy claims. Looks at the bases of certain widely accepted measures of poverty, growth, environmental quality, and the like.
Social Ecology	Public Policy		X	Explores different approaches to public policy analysis, the diverse conceptions of the goals and objectives that should be served by policy, and the appropriate role of the policy analyst. Policy consequences are traced to indirect and subtle incentives and disincentives.
Social Ecology	Collaborative Governance and Public Management		X	Introduction to inclusive management. To make effective use of public resources, public managers are inventing ways of managing that alter relationships within organizations, between organizations, between sectors, and with the public. Requires rethinking fundamentals such as leadership and motivation.
	Total Social Ecology	1	32	

Summary of Courses

School	Undergraduate		Graduate	
	Sustainability Courses	Courses Including Sustainability	Sustainability Courses	Courses Including Sustainability
Arts	0	11	0	0
Biological Sciences	7	33	1	16
Business	0	6	0	6
Education	0	11	0	10
Engineering	3	38	2	37
Humanities	0	17	0	3
ICS	0	2	1	1
Physical Sciences	29	34	3	7
Public Health	9	20	2	14
Social Ecology	6	40	1	32
Social Sciences	7	108	0	29
Undecided/Undeclared	1	8		
Total	**62**	**328**	**10**	**155**

Sustainability Courses Total	**72**
ırses that Include Sustainability	**483**
Total Undergraduate Courses	**390**
Total Graduate Courses	**165**
Total Courses	**555**

Summary of Departments

School	Departments	Sustainability Related Course Offered
Art	Art	Yes
Biological Sciences	Developmental & Cell Biology	Yes
	Ecology & Evolutionary Biology	Yes
	Molecular Biology & Biochemistry	Yes
	Neurobiology & Behavior	Yes
Business	Business Management	Yes
Education	Education	Yes
Engineering	Biomedical Eng	No
	Chemical Eng and Materials Science	Yes
	Civil and Environmental Eng	Yes
	Electrical Eng and Computer Science	Yes
	Mechanical and Aerospace Eng	Yes
Humanities	African American Studies	Yes
	Art History	Yes
	Asian American Studies	Yes
	Classics	Yes
	Comparative Literature	Yes
	East Asian Languages	No
	English	No
	European Languages and Studies	Yes
	Film & Media Studies	Yes
	Gender and Sexuality Studies	Yes
	History	Yes
	Philosophy	Yes
	Spanish & Portuguese	No
ICS	Computer Science	Yes
	Informatics	No
	Statistics	No
Physical Sciences	Chemistry	Yes
	Earth System Science	Yes
	Mathematics	Yes
	Physics & Astronomy	Yes
Public Health	Public Health	Yes
Social Sciences	Anthropology	Yes
	Chicano/Latin Studies	Yes
	Cognitive Sciences	Yes
	Economics	Yes
	Linguistics	No
	Logic and Philosophy of Science	Yes
	Political Science	Yes
	Sociology	Yes
Social Ecology	Criminology, Law & Society	Yes
	Urban Planning & Public Policy	Yes
	Psychology & Social Behavior	Yes
	Social Ecology Core Program	Yes
	Departments Total	**45**
	Total Departments with Sustainability Course	**38**