

Department/ Program	Course Title	Course #	Level (UG/G)	Sustainability Course (SC) or Course that Includes Sustainability (IS)	Course description	Rationale
Art	Environmental Art	ART 080B	UG	IS	Examines the ways artists engage, interact, and comment upon ecology and nature in their artworks by examining environmental art from the 1960s through the present.	This course uses art as a mechanism for examining human and nature interactions, including human impact on the environment.
History of Art & Visual Culture	Contemp Art Africa	HAVC 117	UG	IS	Examines contemporary arts in post-colonial Africa, 1960-present, including new popular cultural forms; arts resulting from new class and national structures; commodification of culture; Pan-Africanism; exhibitionism; and questions of destiny. (Formerly course 185D.)	This course examines the politics of environmental identity and how these themes are expressed in African art.
History of Art & Visual Culture	Topics Contemp Art	HAVC 191P	UG	IS	The political, social, and cultural climates of the U.S. and Europe have experienced many rapid shifts in recent years, shaped by phenomena such as migration, globalization, terrorism, citizen uprisings, economic strife, and environmental catastrophes. Mass movements of people and socio-political crises have forced the most current reappraisal of the conditions of production in art and a reevaluation of the nature of artistic work. Some of the most complex questions in U.S. and European art discourse are about the role of and boundaries around the visual arts in these times of political, social, economic, and environmental turmoil. As a class, we will ask what function art has in times of crisis, particularly focusing how the tumultuous relationships between people in times of upheaval are imagined (and enacted) through art practices. We will read important theoretical texts and writings about contemporary art and its functions and learn about key artists that reflect on these pressing issues.	This course examines the function of art in addressing contemporary issues such as catastrophes caused by human and environmental catastrophes.
History of Art & Visual Culture	Intro Visual Studies	HAVC 201 A	G	IS	This seminar, the first in a two-class sequence, introduces the visual studies discipline, providing students with an overview of the field's development, its primary texts, and its issues of central concern. Features intensive readings and student-led discussions.	This course contains two week module on climate change in visual studies and critical theory.
Biomolecular Engineering	Intro to Biotech	BME 005	UG	IS	Introduces the tools and applications of biotechnology in the fields of medicine, agriculture, the environment, and industry.	Ethics of genetically modified organisms (including for sustainability) is discussed.
Electrical Engineering	RenewEnergySources	EE 080J	UG	SC	Introduction to energy storage conversion with special emphasis on renewable sources. Fundamental energy conversion limits based on physics and existing material properties. Various sources, such as solar, wind, hydropower, geothermal, and fuel cells described. Cost-benefit analysis of different alternative sources performed, and key roadblocks for large-scale implementation examined. Latest research on solar cells and applications of nanotechnology on energy conversion and storage introduced.	This course provides an overview of sustainable and renewable energy sources.
Electrical Engineering	Sustn Eng/Pract	EE 080S	UG	SC	Topical introduction to principles and practices of sustainability engineering and ecological design with emphasis on implementation in society. Provides an understanding of basic scientific, engineering, and social principles in the design, deployment, and operation of resource-based human systems, and how they can be maintained for this and future generations. No specialized background in engineering, science, or social sciences is assumed.	This course is a topical introduction to principles and practices of sustainability engineering and ecological design (SEED) defined here as the planning, development and deployment of technological and social systems and institutions that can protect the earth's ecological systems for this and future generations. The course provides students with an understanding of basic scientific, engineering and social principles in the design, deployment, and operation of resource-based human systems, and how they can be maintained for this and future generations.
Electrical Engineering	Modern Elec Tech	EE 080T	UG	IS	Basic knowledge of electricity and "how things work," how technology evolves, its impact on society and history, and basic technical literacy for the non-specialist. Broad overview of professional aspects of engineering and introduction and overview of basic systems and components. Topics include electrical power, radio, television, radar, computers, robots, telecommunications, and the Internet.	Course examines how green technology impacts society.
Electrical Engineering	Designing Future	EE 081C	UG	IS	Introduces key technological solutions to environmental problems; discusses their underlying principles; and examines their societal dimensions. Topics include: conventional and renewable energy; emerging technologies for transportation, energy efficiency clean water; planetary engineering; and lean manufacturing.	The mission of this class is to provide students with the facts and investigative tools that will enable them to think critically about the engineering and technology aspects of the energy/climate crisis and thus participate creatively in the critical discussions and debates that confront America and the World.
Electrical Engineering	Sust Project Design	EE 122A	UG	SC	This course is the first quarter of a three quarter series of courses that together comprise the IDEASS Program (Impact Designs: Engineering and Sustainability through Student Service), which provides students with opportunities to plan, implement, and evaluate interdisciplinary sustainable design projects in the built environment for the Monterey Bay Region. In fall quarter students are introduced to project topics and background information. In collaboration with an outside mentor project teams design, revise, and complete a project plan including project goals and deliverables, timeline of key activities and major milestones, stakeholder map, evaluation plan, and budget (as applicable).	This course prepares students to develop solutions to sustainability problems in local agencies, community organizations, in the public and private sector.
Electrical Engineering	Sust Project II	EE 122B	UG	SC	The second of a three-quarter sequence that together comprise the IDEASS Program (Impact Designs: Engineering and Sustainability through Student Service) which provides opportunities for students to plan, implement, and evaluate interdisciplinary sustainable-design projects in the built environment for the Monterey Bay Region. In winter quarter, project teams work collaboratively to implement the project plans approved during the fall quarter. Students participate in a weekly seminar series that includes guest lectures and field trips as well as workshops in project management, public speaking, writing skills, and other professional development.	This course prepares students to develop solutions to sustainability problems in local agencies, community organizations, in the public and private sector.

Electrical Engineering	Sust Project III	EE 122C	UG	SC	This course is the third in a three quarter sequence that together comprise the IDEASS (Impact Designs: Engineering and Sustainability through Student Service) program which provides opportunities for students to plan, implement and evaluate interdisciplinary sustainable design projects in the built environment for the Monterey Bay region. In Spring quarter project teams work collaboratively to continue implementation of project plans approved during Fall and then to evaluate project impacts. Students participate in a weekly seminar series that includes guest lectures, field trips as well as workshops in project management, public speaking, writing skills and other professional development. Students also work in the community on educational public outreach regarding project impacts.	This course prepares students to develop solutions to sustainability problems in local agencies, community organizations, in the public and private sector.
Electrical Engineering	Props Of Materials	EE 145	UG	IS	The fundamental electrical, optical, and magnetic properties of materials, with emphasis on metals and semiconductors: chemical bonds, crystal structures, elementary quantum mechanics, energy bands. Electrical and thermal conduction. Optical and magnetic properties.	This course covers the fundamental electronic properties of materials used in renewable energy technologies such as solar cells and thermoelectric converters. These properties include electrical and thermal conductivity as well as their control through techniques such as semiconductor doping. Basic principles of these devices are also discussed.
Electrical Engineering	Props Of Matris Lab	EE 145L	UG	IS	Laboratory sequence illustrating topics covered in course 145.	Includes a lab on testing and optimizing the operation of a semiconductor solar cell. The basic current-voltage relation is measured and the operating point for optimum power generation is determined.
Electrical Engineering	Energy Gen Control	EE 175	UG	IS	Introduces electrical energy generation, sensing, and control, emphasizing the emerging smart grid. Topics include 3-phase AC power systems, voltage and transient stability, fault analysis, grid protection, power-flow analysis, economic dispatch, and high voltage DC distribution (HVDC).	This background lays an essential foundation to addressing topics like smart and micro-grids, the economics and ecological issues of hydro vs. nuclear power generation vs. wind vs. photo-voltaic.
Electrical Engineering	Energy Gen/Ctrl Lab	EE 175L	UG	IS	Computer analysis and simulation of energy generation, components, power-flow analysis, systems, and control covering topics from course 175. Weekly computer simulations reinforce the concepts introduced in course 175.	This background lays an essential foundation to addressing topics like smart and micro-grids, the economics and ecological issues of hydro vs. nuclear power generation vs. wind vs. photo-voltaic.
Electrical Engineering	Energy Conv/Ctrl	EE 176	UG	IS	AC/DC electric-machine drives for speed/position control. Integrated discussion of electric machines, power electronics, and control systems. Computer simulations. Applications in electric transportation, hybrid-car technology, robotics, process control, and energy conservation.	This course lays an essential foundation to addressing topics like the efficient design and control of wind turbines.
Electrical Engineering	Energy Conv/Ctrl Lab	EE 176L	UG	IS	Simulink-based simulations of electric machines/drives in applications such as energy conservation and motion control in robotics and electric vehicles.	This course lays an essential foundation to addressing topics like the efficient design and control of wind turbines.
Electrical Engineering	Power Electronics	EE 177	UG	IS	Switch-mode power converter design and analysis. Now-switching power supplies. Electronic power-factor correction. Soft switching. Power-semiconductor devices. Use in energy conservation, renewable energy, lighting, and power transmission.	Unit exploring how non-linear switching theory is needed to understand HVDC (high-voltage DC) power transmission and the design of MPPT (max power-point tracking) for photo-voltaic systems.
Electrical Engineering	Power Electronics Lab	EE 177L	UG	IS	Buck, boost, buck-boost, flyback, and forward converter design and control.	Unit exploring how non-linear switching theory is needed to understand HVDC (high-voltage DC) power transmission and the design of MPPT (max power-point tracking) for photo-voltaic systems.
Electrical Engineering	Adv Renewable Enrgy	EE 180J	UG	SC	Provides a comprehensive overview of renewable energy sources. Fundamental energy-conversion limits based on physics and existing material properties discussed. Various sources and devices, such as solar, wind, hydropower, geothermal, and fuel cells described. Solar- and wind-site assessment, as well as biofuel energy balance, also discussed. Key scientific and economic roadblocks for large-scale implementation examined. Finally, the latest research on application of nanotechnology to energy conversion and storage introduced.	This course examines applications for renewable energy.
College Eight	PeregrFalconsReturn	CLEI 020G	UG	IS	Required training laboratory for students who wish to pursue a hands-on, two-credit service project (laboratory or field) that is focused on peregrine falcon conservation.	Course provides hand's on conservation work in service project focused on biodiversity.
College Eight	Service Learning	CLEI 055	UG	IS	Introduction to service learning theory and practice for students engaging in service-learning work in College Eight, College Eight-related projects, community service organization, or public agencies.	Internship with environmental or sustainability organization
College Eight	Sustainable Living	CLEI 061	UG	SC	Analyses sustainability and its application in daily life and on campus, involving collaboration between students, faculty, staff, administration, and the community. Guest lecturers, discussions, an optional UC-wide retreat, and essays allow engagement with aspects of ecological and social sustainability.	Focuses on sustainable living on campus
College Eight	UD:Environ/Society	CLEI 080A	UG	IS	Explores rhetorical principles and conventions of university discourse, providing intensive practice in analytical writing, critical reading, and speaking. Introduces students to environmental history, ethics, and policy options, and teaches them to analyze and interpret key literary texts.	College writing class on focuses on intersections of california environment and society, including issues in sustainability.
College Eight	Rl:EnvironmntSociety	CLEI 080B	UG	IS	Explores the intersections of investigation, interpretation, and persuasion and hones strategies for writing and research. Introduces students to environmental history, ethics, and policy options, and teaches them to analyze and interpret key literary texts.	College writing class on focuses on intersections of california environment and society, including issues in sustainability.
College Eight	UD:Write Env and Soc	CLEI 080C	UG	IS	Two-quarter seminar explores rhetorical principles and conventions of university discourse, providing intensive practice in analytical writing, critical reading, and speaking. Introduces students to environmental history, ethics, and policy options, and teaches them to analyze and interpret key literary texts.	College writing class on focuses on intersections of california environment and society, including issues in sustainability.
College Eight	UD: Write Env&Soc II	CLEI 080D	UG	IS	Two-quarter seminar explores rhetorical principles and conventions of university discourse, providing intensive practice in analytical writing, critical reading, and speaking. Introduces students to environmental history, ethics, and policy options, and teaches them to analyze and interpret key literary texts.	College writing class on focuses on intersections of california environment and society, including issues in sustainability.

College Eight	Environment and Us	CLEI 081A	UG	IS	Takes students through a wide range of approaches to environmental citizenship and provides conceptual and practical tools to explore alternatives. Students also participate in a hands-on sustainability project designed to connect academic learning with practical applications.	College writing class on focuses on intersections of california environment and society, including issues in sustainability.
College Eight	FundamentalsEnvSci	CLEI 081B	UG	IS	Addresses major issues in physical and biological environmental sciences and provides tools to critically evaluate, debate, and make informed choices regarding one's own impact on the environment. Topics include: climate change, water resources, air pollution, evolution, ecology (from populations to ecosystems), and conservation.	College 8 core course on environmental science
College Eight	Designing Future	CLEI 081C	UG	IS	Introduces key technological solutions to environmental problems; discusses their underlying principles; and examines their societal dimensions. Topics include: conventional and renewable energy; emerging technologies for transportation, energy efficiency clean water; planetary engineering; and lean manufacturing.	College 8 core course on environmental engineering
College Eight	Enviro&Soc in Film	CLEI 082	UG	IS	Students write about and discuss a variety of films and articles about environment and society. Topics may include water, food systems, wilderness, wildlife, pollution, global warming, nuclear energy, conservation, and environmental activism.	Seminar on environment in film
College Eight	Garden Internship	CLEI 090	UG	IS	One-credit internship in the College Eight Garden. Offers students of College Eight an opportunity to become involved in an experimental learning project focusing on application of concepts of sustainable agriculture.	Internship in College 8 garden
College Eight	Sustainability Praxis	CLEI 150A	UG	SC	Introduces the concepts, methods, and practices of research on sustainable energy, water, and food production and consumption. Resources surveying and assessment; building energy auditing; renewable energy systems; water supply, demand, and distribution. Intensive agroecology is conducted at campus sites.	Course in Sustainability Studies minor
College Eight	Sustainability Tools	CLEI 150B	UG	SC	Problem-solving in sustainability through basic STEM concepts, statistical tools, and analytical methods for engaging in advanced sustainability studies drawn from physics, chemistry, biology, ecology, engineering, electronics, sociology, economics, and public policy.	Course in Sustainability Studies minor
College Eight	Green Enterprise	CLEI 150C	UG	SC	Teaches students how to become green entrepreneurs, develop green enterprises, and incubate green projects, especially in connection with students' research and interests. Students develop business plans; solicit participation from mentors; and prepare and submit funding proposals.	Course in Sustainability Studies minor
College Eight	C8 Sustain Internship	CLEI 155	UG	SC	For students undertaking sustainability-oriented service-learning work in the college (college-related projects, community service organizations, or public agencies). Students are supervised by the college provost and project supervisor, and determine the content of their internship with the provost and supervisor. Enrollment restricted to College Eight members or by permission of instructor.	Internship w/ green org, on or off campus
College Eight	Facilitate Enviro Ed	CLEI 160	UG	IS	Prepares students to facilitate working groups for "Sustainable Living" (courses 61/161) during the spring quarter. The skills acquired during this course include: facilitation skills; problem-solving; syllabus planning; curriculum building; experiential learning techniques; leadership skills; cultural competence; and non-violent communication training.	ESLP facilitator training class
College Eight	Sustainable Living	CLEI 161	UG	SC	Analyzes sustainability and its application in daily life and on campus, involving collaboration between students, faculty, staff, administration, and the community. Guest lecturers, discussions, an optional UC-wide retreat, and essays allow engagement with aspects of ecological and social sustainability.	ESLP spring class (upper division)
College Eight	Sust Int Practicum	CLEI 162	UG	SC	Introduces students to sustainable practices and state, local, and UC-wide policies through projects. Matches students with UCSC staff partners to work collaboratively on projects that integrate sustainability into aspects of campus operations. Supports students to develop the competencies necessary to become effective environmental professionals through learning models including hands-on work experience; professional skills training; guest lectures; reading, and discussion; and peer-to-peer advising. In addition to project deliverables, students complete and present a portfolio of their work upon completion of their project.	Students work on campus sustainability project collaboratively with staff
College Nine	Community Garden	CLNI 070	UG	SC	Students in this course design and build a new community garden at Colleges Nine and Ten. Students engage in a collaborative design process with campus stakeholders; learn hands-on skills and community gardening best practices; and build regenerative social and ecological systems.	Focuses on sustainable agriculture practices
College Nine	Global Action	CLNI 085	UG	IS	Workshop facilitated by peer instructors. Students learn about current international and global issues through interactive exercises, small-group discussions, and faculty presentations. Students develop an "action plan" to raise awareness about one or more of these concerns and take practical steps to create positive change in the world.	The course's special topic changes each quarter, but in Winter 2013 the final projects focused on agrofuels and food justice, and Winter 2015 focused on indigenous communities in the Amazon affected by the damaging of natural resources. The class has strong ties with Clearwater, an organization that provides water filtration systems, and the students often hold fundraisers and other events to benefit this organization.
College Ten	Social Justice Work	CLTE 085	UG	IS	Series of presentations, films, and workshops that address personal and cultural identity and examine social, cultural, political, environmental, and other justice concerns.	The course includes a unit on social justice work and advocacy related to sustainability.
College Ten	EnvironmentalPolicy	CLTE 105	UG	SC	Explores how environmental policy is made and influenced. Students learn about key contemporary environmental issues and the forces at play in determining environmental policy outcomes. Focuses on skills that enable citizens to impact environmental policy. (Formerly The Making and Influencing of Nuclear Policy.)	This course focuses on how to create and advocate policies for sustainable development, sustainable practices, etc.
Crown College	Ecocriticism	CRWN 060	UG	IS	Examines the overt as well as the subtle cinematic elements that depict, ponder, and persuade concerning issues of the environment and the role of humans regarding nature, animals, and the human-made landscape.	Explores relationship between humans and nature in cinema

Crown College	UD:Ethical Issues	CRWN 080A	UG	IS	Explores rhetorical principles and conventions of university discourse, providing intensive practice in analytical writing, critical reading, and speaking. Examines ethical challenges brought about by rapidly changing science and technology.	course includes looking at critical issues through ethics: global warming, climate change
Crown College	Rl:Ethical Issues	CRWN 080B	UG	IS	Explores intersection, interpretation, and persuasion and hones strategies for writing and research. Examines ethical challenges brought about by rapidly changing science and technology.	course includes looking at critical issues through ethics: global warming, climate change
Kresge College	Transformative Action	KRSG 062	UG	IS	Introduces the most effective methods for social change. Examines social entrepreneurs, innovators, and visionaries. Reviews traditional methods of activism and new theories of nonviolent social change. Presents case studies of success in addressing problems of social injustice.	Case studies presented include examination of social justice issues that pertain to sustainability.
Kresge College	Kresge Garden Co-op	KRSG 063	UG	SC	Offers hands-on gardening skills within a student-run space. Focuses on developing a strong cooperative garden on campus, with special attention to the documentation of this process.	Explicit focus is on teaching sustainable agriculture practices.
Kresge College	Tools for World Changers	KRSG 064	UG	IS	Develops life skills that support you and help you support others. Implement effective methods for personal productivity (managing your to-dos, calendar, and inbox), interpersonal communication, meeting facilitation, event hosting, collaboration, and regenerative community design.	This course includes a unit on regenerative design which teaches processes for community- building that restore, renew or revitalize their own sources of energy and materials, creating sustainable systems that integrate the needs of society with the integrity of nature.
Kresge College	Pwr & Rep: Food	KRSG 065A	UG	IS	Explores core themes of power and representation through the mediums of food, nature awareness, community, personal empowerment and sustainable living. Students will develop meaningful final projects in collaboration with Kresge Food Co-op, Kresge Garden Co-op, Kresge World Cafe, and projects of their own design.	This course
Kresge College	Collab Learning	KRSG 072	UG	IS	Collaborative learning in service of transitioning from industrial growth society to a life-sustaining society. Students deepen their connection with nature, themselves, and community through guest lectures, intergenerational dialogue to discover collective and wise action, and engagement with long-term projects.	Explicit focus is a social movement analysis of sustainability, and developing tools for collaborative learning and collective action. Catalog description: "Collaborative learning in service of transitioning from industrial growth society to a life-sustaining society. Students deepen their connection with nature, themselves, and community through guest lectures, intergenerational dialogue to discover collective and wise action, and engagement with long-term projects."
Kresge College	Collab Learning	KRSG 073	UG	IS	Collaborative learning in service of building thriving, just, and sustainable communities locally and globally. Learn about Ecovillages and reclaiming the commons while also discovering collective and wise action through guest lectures, intergenerational dialogue, and engagement with long-term projects.	Explicit focus is on sustainable communities, collaborative learning, and how the notion of "the commons" is relevant to discussions of sustainability today. Catalog description: "Collaborative learning in service of building thriving, just, and sustainable communities locally and globally. Learn about Ecovillages and reclaiming the commons while also discovering collective and wise action through guest lectures, intergenerational dialogue, and engagement with long-term projects."
Kresge College	Collab. Learning	KRSG 074	UG	IS	Collaborative learning in service of fostering community resilience in response to peak oil. Practice hands-on skills with permaculture and transition towns while also discovering collective and wise action through guest lectures, intergenerational dialogue, and engagement with long-term projects.	Explicit focus is collaborative learning of advance sustainable living practices and principles.
Kresge College	Permaculture Design	KRSG 161	UG	SC	Focuses on concepts, principles, and practices of permaculture and whole systems design. Permaculture education is transdisciplinary and provides practical experience with design, ecological horticulture, regional planning, natural building, architecture, appropriate technology, aquaponics, animal husbandry, ecopsychology, and community resilience. Enrollment by application. Priority given to Kresge College students.	Focuses on concepts, principles, and practices of permaculture and whole systems design, including sustainable agriculture
Kresge College	Collab Learning	KRSG 172	UG	IS	Collaborative learning in service of transitioning from industrial growth society to a life-sustaining society. Students deepen their connection with nature, themselves, and community through guest lectures, intergenerational dialogue to discover collective and wise action, and engagement with long-term projects.	Explicit focus is a social movement analysis of sustainability, and developing tools for collaborative learning and collective action.
Kresge College	Collab Learning	KRSG 173	UG	IS	Collaborative learning in service of building thriving, just, and sustainable communities locally and globally. Learn about Ecovillages and reclaiming the commons while also discovering collective and wise action through guest lectures, intergenerational dialogue, and engagement with long-term projects.	Explicit focus is on sustainable communities, collaborative learning, and how the notion of "the commons" is relevant to discussions of sustainability today.
Kresge College	Collab Learning	KRSG 174	UG	IS	Collaborative learning in service of fostering community resilience in response to peak oil. Practice hands-on skills with permaculture and transition towns while also discovering collective and wise action through guest lectures, intergenerational dialogue, and engagement with long-term projects. Enrollment is restricted to sophomores, juniors, and seniors.	Explicit focus is collaborative learning of advance sustainable living practices and principles.
Oakes College	Politics of Food	OAKS 067	UG	SC	Engages the themes of Oakes College (respect for diversity and social justice) and the interests of UCSC's Center for Agroecology and Sustainable Food Systems. Topics include the racial politics of food, farm labor, organic farming, and activism.	This course focuses on food justice issues.
Stevenson College	Stvn Community Grdn	STEV 016	UG	SC	Hands-on course in ecological horticulture at the Stevenson garden. Students grow the Stevenson community through gardening and projects focused on building a healthy and regenerative local-foods culture.	Hands-on course in ecological horticulture at the Stevenson garden. Students grow the Stevenson community through gardening and projects focused on building a healthy and regenerative local-foods culture.
Stevenson College	SDS: Stevenson Garden	STEV 042G	UG	SC	Hands-on horticultural skills development in the Stevenson garden. Readings are centered on gardening techniques from the UCSC farm apprenticeship guide, and gardening as its applies to self and society.	Hands on course in sustainable agriculture.
Stevenson College	The Nuclear Pacific	STEV 090	UG	IS	Examines the history of nuclear weapons and nuclear power in the Pacific region from 1945 to 2013. Students do research on nuclear science, medicine, energy, and weapons testing and their social, political, demographic, and environmental impacts.	Students do research on nuclear science, medicine, energy, and weapons testing and their social, political, demographic, and environmental impacts.

Literature	The Nuclear Pacific	LTWL 109	UG	IS	Central to our collective inquiry this term is how imperial power, which gave rise to this geography of disaster in the first place, registers as discrepant representations: as "eye in the sky" icons of the nuclear sublime (e.g., the mushroom cloud, aerial imagery of atomic ruin) in contrast to on-the-ground testimonial perspectives; as mutated life-forms (superheroes and zombies) created via purely imagined nuclear encounter in contrast to the walking dead of Hiroshima, Nagasaki, and U.S. human radiation experiments; as the beauty of tropical vacation destinations in contrast to the ugly and hard truths of cancer, displacement, and dispossession; as government-sponsored statements in contrast to indigenous cultural and activist articulations. How, we will ask, does representational form disclose or obscure historical content? Beyond binaristic framings, moreover, how might we understand the journey of the atom within the Pacific?	Examines effects of nuclear bomb on human civilization including environmental and health concerns.
Literature	The Future	LTWL 113	UG	IS	The course explores a variety of orientations toward the future. By the end of the course, students should have made progress in their analytical understanding of various modes of conceiving the future, and should be able to experience the future with greater depth, intelligence, and imagination.	This course has one unit on social progress and development and one examining human impacts on the environment.
Literature	Global Cities: Shanghai	LTWL 132	UG	IS	This course treats historical and contemporary Shanghai from multiple perspectives, including representations of Shanghai in literature and film.	This course examines sustainability issues in urbanized areas including housing, environmental quality, and commercialism.
Philosophy	Environmental Ethics	PHIL 290H	G	IS	What is our proper moral stance toward the natural environment? This question encompasses our ethical relations to individual non-human animals, to other species of living beings, and toward the biotic community as a whole. It leads us to consider the broader question: What makes anything at all worthy of our moral respect or even our moral consideration? How are we to understand the very idea of the environment, the distinction between the human world, and the natural world, and the relationships between them.	Content on the relationships between the human and natural world with sustainability as a component of ethical relations.
Chemistry and Biochemistry	Organic Chem Lab	CHEM 108L	UG	IS	Laboratory experience in organic chemistry associated with course 108A. Designed to introduce the student to the many techniques associated with organic chemistry while affording an opportunity to explore the concepts discussed in the lecture material.	This course has one green chemistry experiment - steam distillation of citrus oils, as opposed to extraction with organic solvents. "Green Chemistry" is not stated in the syllabus but it is the title of the experiment.
Chemistry and Biochemistry	Adv Lab Physical	CHEM 146C	UG	IS	Provides advanced laboratory experience in the areas of nanomaterial synthesis and characterization; spectroscopy; fabrication and measurements energy-conversion devices; and soft lithography techniques and instrumentation	Working principles of devices used in sustainable energy (fuel cells, solar cell) are discussed.
Chemistry and Biochemistry	Adv Inorganic Chem	CHEM 256C	G	IS	Advanced topics in inorganic chemistry are presented. Topics covered vary from year to year, and are announced in advance. Possible topics include A) organometallic chemistry; B) structural methods in inorganic chemistry; C) solid-state chemistry.	Working principles of devices used in sustainable energy (fuel cells, solar cell) are discussed.
Earth and Planetary Sciences	Oceanography	EART 001	UG	IS	An introduction to the physical environment of the ocean. Origin and evolution of ocean basins; sea-floor morphology; origin, distribution, historical record, and economic significance of marine sediments; ocean currents, waves, tides, and changing sea level; beaches, shorelines, and coastal processes; marine resources, pollution, and human impacts on the oceans.	Examines human impacts on the oceans, pollution and marine resources.
Earth and Planetary Sciences	Eart Hist/Globl Chg	EART 009	UG	SC	Over the past 4.5 billion years, planet Earth has evolved in exciting ways. Environments, climates, and life forms have come and gone in fascinating combinations. Course examines changing physical, biological, and climatological conditions through geologic time, beginning with the evolution of the Earth through changes leading to the current state of the planet, and considers prospects for Earth's future.	Examines human impacts on earth through climate change.
Earth and Planetary Sciences	Environmental Geolo	EART 020	UG	SC	Introduction to aspects of geology which affect and are affected by humans. Addresses a broad range of topics including resource management, geologic hazards, air and water issues, population and land use, energy costs and effectiveness, and global change, all from a unique geological/environmental perspective.	Addresses a wide array of relevant topics including resource management, air and water issues, population and land use and global change.
Earth and Planetary Sciences	FundamentalsEnvSci	EART 081B	UG	SC	Addresses major issues in physical and biological environmental sciences and provides tools to critically evaluate, debate, and make informed choices regarding one's own impact on the environment. Topics include: climate change, water resources, air pollution, evolution, ecology (from populations to ecosystems), and conservation. Addresses a number of relevant topics such as climate change, water resources, air pollution, conservation biology and invasive species.	Addresses a number of relevant topics such as climate change, water resources, air pollution, conservation biology and invasive species.
Earth and Planetary Sciences	Geologic Hazards	EART 104	UG	IS	The recognition, evaluation, and mitigation of geologic hazards: earthquakes and faulting, tsunamis, volcanism, landslides and mass movements, and flooding. Addresses hazards of earthquakes, tsunamis, volcanoes, landslides and flooding, all relevant to the sustainability of the built environment.	Addresses hazards of earthquakes, tsunamis, volcanoes, landslides and flooding, all relevant to the sustainability of the built environment.
Earth and Planetary Sciences	Coastal Geology	EART 105	UG	IS	Addresses the science, engineering and conservation of coastal regions which are home to a substantial fraction of the world's population.	Addresses the science, engineering and conservation of coastal regions which are home to a substantial fraction of the world's population.
Earth and Planetary Sciences	Remote Sensing	EART 107	UG	IS	Introduction to geographic information systems (GIS) and remote sensing (RS) as valuable tools in the study of geology. Covers application of GIS/RS to study of surface processes, including landslides, hydrologic basins, coastal erosion, modern floods, volcanic activity and surface deformation.	Addresses topics related to the land surface such as landslides, hydrology, erosion, and floods relevant to human society.
Earth and Planetary Sciences	Evolution Of Earth	EART 110A	UG	IS	Investigation of the processes and mechanisms that have produced the present Earth system, with an emphasis on the temporal evolution of the earth from the Archean to the present. Specific topics covered include cyclicity in Earth processes and the evolution of, and interplay between the planet's crust, atmosphere, hydrosphere, and biosphere.	Includes a module on climate change.
Earth and Planetary Sciences	Evol of Earth Lab	EART 110L	UG	IS	Laboratory sequence illustrating topics covered in course 110A. Emphasis is on quantifying and evaluating different phenomena related to thermal, tectonic, climatic, and evolutionary processes.	Lab associated with 110A. Includes module on climate change.

Earth and Planetary Sciences	Hydrology	EART 116	UG	IS	Introduces processes involving water on and near Earth's surface, including meteorology, water properties, surface flows in streams and runoff, flood analysis, ground water, water budgets, sediment transport, erosion, and water quality.	Addresses scientific and engineering issues associated with water resources.
Earth and Planetary Sciences	The Atmosphere	EART 121	UG	IS	Course focuses on understanding basic atmospheric weather and climate phenomena starting from the fundamentals of physics and chemistry. Using this approach, covers topics such as atmospheric circulation, precipitation, clouds, storms, urban and regional air quality, atmospheric aerosols, and climate and global change.	Addresses climate change.
Earth and Planetary Sciences	Ground Water	EART 146	UG	IS	Explores saturated and unsaturated fluid flow below Earth's surface, well hydraulics, and recourse evaluation and development. Introduces modeling, field techniques, geochemistry, and contaminant transport and remediation. Problem set and laboratory each week; final paper.	Addresses scientific and engineering issues associated with water resources.
Earth and Planetary Sciences	Glaciology	EART 148	UG	IS	Introduction to the role of snow and ice in the dynamics of the earth surface system. Snow deposition and metamorphosis. Heat and mass balance at snow and ice surfaces. Flow of glaciers, ice sheets, and sea ice. Methods of climate reconstruction. Ice age theories. Students are billed a materials fee.	Includes discussion of ice sheet stability, critical for sea level rise as a result of climate change.
Earth and Planetary Sciences	Climate Chg Sci/Pol	EART 191	UG	SC	191A Explores the scientific basis of current and pending climate change, and the state of climate policy issues in California, the nation, and the world. Work includes foundational lectures on both public policy and climate science; additional guest lectures from policy makers, politicians, and scientists. Students are introduced to and become familiar with addressing climate-change issues from both policy and scientific perspectives; research papers and public presentations are required activities. (Formerly course 191.)	Directly addresses the intersection of climate change science and policy.
Earth and Planetary Sciences	Paleoclimatology	EART 208	G	SC	Addresses methods used to reconstruct aspects of paleoclimates and paleoenvironments from the geologic record, focusing primarily on terrestrial records. Topics to be covered include dendrochronology and dendroclimatology, paleopalynology, paleobotany, ice cores, and paleosol studies.	Addresses topics for understanding and measuring climate change.
Earth and Planetary Sciences	Isotopic Enviro Sci	EART 229	G	IS	Explores how natural variations in stable isotope ratios answer questions in ecology, paleobiology, and other environmental sciences.	
Earth and Planetary Sciences	The Climate System	EART 254	G	SC	Focuses on atmospheric and oceanic processes that are important within the Earth's climate system, especially those that operate on annual to centennial time scales.	Addresses topics related to climate change
Earth and Planetary Sciences	DeepTimePaleoclimates	EART 258	G	SC	Weekly lectures/readings/presentations focused on the key events in the long-term evolution of Earth's climate (i.e., before the Pliocene), including early Archean, faint, young-sun period; Proterozoic snowballs; Paleozoic glaciations and greenhouse events; the mid-Cretaceous oceanic anoxic events (OAEs); and Paleogene thermal maxima and glacial intervals. Considerable emphasis on evaluating the proxies of climate and mechanisms of climate change (e.g., greenhouse gasses, paleogeography).	Addresses topics related to climate change
Earth and Planetary Sciences	Order of Magnitude	EART 265	G	IS	Practice in making rough estimates and leading-order approximations in physical and chemical processes.	Addresses topics related to climate change and energy resources
Earth and Planetary Sciences	Coastal Processes	EART 290F	G	SC	Instructor and students lead discussions and make presentations on current research, problems, and publications in coastal processes. These topics include littoral drift, sediment transport and storage on the inner shelf, shoreline erosion/change and its documentation, and related issues.	Addresses the science, engineering and conservation of coastal regions which are home to a substantial fraction of the world's population.
Earth and Planetary Sciences	Hydrogeology	EART 290H	G	SC	Selected topics in groundwater, hydrothermal systems, and related subjects. Discussion of theoretical models, field and laboratory approaches, and recent research.	Addresses scientific and engineering issues associated with water resources.
Earth and Planetary Sciences	Paleocean & Climate	EART 290T	G	SC	Students and instructor lead discussions of recent and significant problems in paleoceanography and paleoclimatology. Articles structured around current themes of interest are selected by the instructor. Emphasis on major climatic transitions or events which noticeably influenced evolution of biota.	Addresses topics related to climate change
Ecology & Evolutionary Biology	Ecology & Evolution	BIOE 020C	UG	IS	Introduction to ecology and evolution covering principles of evolution at the molecular, organismal, and population levels. Evolutionary topics include genetic and phenotypic variation, natural selection, adaptation, speciation, and macroevolution. Also covers behavioral, population, and community ecology including applied ecological issues.	Integral to this class is the idea of regulation as it pertains to population growth. This introduces a human element and implies a balance of various economic and social aspects.
Ecology & Evolutionary Biology	Ecology	BIOE 107	UG	IS	Focuses on physiological, behavioral, and population ecology, and on linking ecological processes to evolution. It includes basic principles, experimental approaches, concepts of modeling, and applications to ecological problems.	Major concepts in population and evolutionary ecology. Theoretical, experimental, and field studies pertaining to population growth and regulation, competition, predation, diversity, adaptation and life history strategies. Integral to this class is the idea of regulation as it pertains to population growth. This introduces a human element and implies a balance of various economic and social aspects.
Ecology & Evolutionary Biology	Marine Ecology	BIOE 108	UG	IS	Paradigms and designs in marine ecology. A review of the paradigms that have shaped our understanding of marine ecology; analysis and discussion of experiments with these paradigms.	Examines human impacts on marine ecosystems
Ecology & Evolutionary Biology	Plants and Society	BIOE 118	UG	IS	Introduces plant biology as it affects human society. Topics include the origins of agriculture, the morphology and chemistry of food plants, the material uses of plant products, the biology of medicinal plants, and plant diversity and bioprospecting.	This course incorporates extensive material on the sustainable use of plants in both natural and managed systems, and the wise incorporation of biotechnology in food systems.
Ecology & Evolutionary Biology	Plant Ecology	BIOE 145	UG	IS	An exploration of the ecology of plant form, function, distribution, abundance, and diversity. Topics include plant adaptations to environmental conditions, life history variation, competition, reproductive ecology, herbivory, and patterns of diversity.	This course includes extensive discussion of conservation, ecological restoration, agroecology, and climate change.
Ecology & Evolutionary Biology	Plant Ecology Field	BIOE 145L	UG	IS	Hands-on exploration of the concepts and techniques of plant ecology. A combination of lab, greenhouse, and field-based exercises (irrespective of weather conditions). Statistical analysis and scientific writing.	This course trains students in field biology techniques with an explicit intent to prepare them for careers in conservation and restoration and resource management.

Ecology & Evolutionary Biology	Quantitative Ecology	BIOE 148	UG	SC	Quantitative treatment of the central concepts and applications of theoretical ecology. Emphasis on the mathematical modeling of single populations and species interactions, and the integration of models with data. Topics include stochastic and deterministic processes of extinction; discrete- and continuous-time models of growth and population viability analysis relevant to small and harvested populations; numeric and analytical investigations of dynamics and stability; introduction to model-fitting in information theoretic framework using R and/or MATLAB.	Focus of course is on use of mathematics to address conservation issues.
Ecology & Evolutionary Biology	Disease Ecology	BIOE 149	UG	IS	Focuses on the ecological and evolutionary processes that drive the transmission of pathogens between hosts; the impact of disease on host populations; and what causes the emergence of an infectious disease. Includes theoretical framework, description of field techniques, and discussion of wildlife and human diseases including malaria, West Nile virus, Lyme disease, HIV, avian influenza (bird flu), Chikungunya, tuberculosis, chytridiomycosis, and Ebola.	This class examines how changing disease ecology influences disease prevalence and how such changing patterns of disease have influenced human history.
Ecology & Evolutionary Biology	Eco Field Methods	BIOE 150	UG	IS	Lectures and laboratory computer exercises designed to familiarize students with research methods, study design, statistical approaches, and analysis tools for ecological research.	Course focuses on methods and applications of conservation biology.
Ecology & Evolutionary Biology	Eco Fld Methods Lab	BIOE 150L	UG	IS	Field-oriented course in the study of animal ecology and behavior. Combines overview of methodologies and approaches to field research with practical field studies.	Course identifies key conservation issues in California and teaches approaches to quantifying human impacts and measuring conservation outcomes
Ecology & Evolutionary Biology	Ecol Field Methods	BIOE 151A	UG	IS	An intensive, on-site learning experience in terrestrial field ecology and conservation, using the University of California Natural Reserves. Students study advance concepts in ecology, conservation, and field methods for four weeks, then experience total immersion in field research at the UC Natural Reserves. Lectures, field experiments, and computer exercises familiarize students with research methods, study design, statistical approaches, and analytical tools for ecological research.	Course identifies key conservation issues in California and teaches approaches to quantifying human impacts and measuring conservation outcomes
Ecology & Evolutionary Biology	Ecol Fld Mthds Lab	BIOE 151B	UG	IS	Field-oriented course in ecological research. Combines overview of methodologies and approaches to field research with practical field studies including conservation approaches.	Course is field intensive course featuring inquiry-driven approaches to conservation science. Includes explicit modules on human impacts and student conservation projects
Ecology & Evolutionary Biology	Terrestrial Ecosys	BIOE 151C	UG	IS	From lectures and discussion of terrestrial community and ecosystem ecology, students work individually or in small groups to present an idea for a project, review relevant literature, develop a research question/hypothesis, design and perform an experiment, collect and analyze data, and write a report.	Course is field intensive course featuring inquiry-driven approaches to conservation science. Includes explicit modules on human impacts and student conservation projects
Ecology & Evolutionary Biology	Conserv/Practice	BIOE 151D	UG	SC	Focuses on current issues in environmental and conservation biology and the emerging field methods used to address them. From field-oriented lectures about current issues in environmental and conservation biology, students pursue research project as individuals and small groups to develop hands-on experience with field skills in conservation research and resource management.	Explicit focus of course is on current environmental and conservation issues as well as methods and applications of conservation biology.
Ecology & Evolutionary Biology	Freshwater Ecology	BIOE 155	UG	SC	Provides an overview of the physical, chemical, and biological processes that characterize inland waters such as lakes, streams, rivers, and wetlands. Also addresses relationships between humans and freshwater, and discusses these challenges in conservation.	Course addresses relationships between humans and freshwater, and discusses these challenges in conservation.
Ecology & Evolutionary Biology	Reef/Mangrv/Seagrass	BIOE 163	UG	SC	Integrated treatment of coral reefs, sea grasses, and mangroves emphasizing interactions and processes through time. Major topics: biological and geological history, biogeography, evolution and ecology of dominant organisms, biodiversity, community and ecosystem ecology, geology, biogeochemistry, global change, human impacts.	Examines human impacts on marine ecosystems
Ecology & Evolutionary Biology	Marine Conserv Bio	BIOE 165	UG	SC	Course is a review of human impacts on marine ecosystems and potential solutions. Includes solution-driven discussion sections, presentations from conservation leaders in the government and non-government sector, and student projects in marine conservation.	Course focuses on human impacts on marine ecosystems and solutions.
Ecology & Evolutionary Biology	IntroScienceWriting	BIOE 188	UG	IS	A rigorous examination and practice of the skills involved in writing articles about science, health, technology, and the environment for the general public. Covers the essential elements of news writing and explanatory journalism, including developing a story idea, interviewing scientists, fact checking, composition, and editing of multiple drafts about scientific research.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Ecology & Evolutionary Biology	Plant Ecology	BIOE 245	G	IS	An exploration of the ecology of plant form, function, distribution, abundance, and diversity. Topics include plant adaptations to environmental conditions, life history variation, competition, reproductive ecology, herbivory, and patterns of diversity. Lecture with discussions of original papers and independent field project.	This course includes extensive discussion of conservation, ecological restoration, agroecology, and climate change.
Ecology & Evolutionary Biology	Plant Ecology	BIOE 245L	G	IS	Hands-on exploration of the concepts and techniques of plant ecology. A combination of lab, greenhouse, and field-based exercises (irrespective of weather conditions), statistical analysis, and scientific writing.	This course includes extensive discussion of conservation, ecological restoration, agroecology, and climate change.
Ecology & Evolutionary Biology	Topics in Freshwater ecology	BIOE 281E	G	SC	Current topics in freshwater ecology, eco-evolutionary dynamics, fisheries, and fish ecology.	Examines sustainable fisheries
Ecology & Evolutionary Biology	DiseaseEco/Population	BIOE 281I	G	IS	Selected topics in population biology and disease ecology. Students present results from their own research and discuss recent advances from the literature.	This class examines how changing disease ecology influences disease prevalence and how such changing patterns of disease have influenced human history
Ecology & Evolutionary Biology	Plant Population	BIOE 281P	G	IS	An intensive seminar on selected topics in plant ecology and population biology. Students present results from their own research and discuss recent advances from the literature.	This graduate seminar incorporates substantial material on conservation and restoration, particularly in the context of biological invasions

Ocean Sciences	The Oceans	OCEA 001	UG	IS	An interdisciplinary introduction to oceanography focusing on biological, chemical, geological, and physical processes. Covers topics such as origins and structure of planet Earth and its oceans, co-evolution of Earth and life, plate tectonics, liquid water and the hydrologic and hydrothermal cycles, salinity and elemental cycles, ocean circulation, primary production and nutrient cycles, plankton and nekton, life on the sea floor, near shore and estuarine communities, future environmental problems our oceans face. Examines human impacts.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Life In The Sea	OCEA 080A	UG	IS	The ecology of plants and animals in oceans and coastal areas. Consideration of life in various marine habitats, including the open ocean, rocky shores, estuaries, and the sea. Examines human impacts on ecosystems and habitats.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Our Changing Planet	OCEA 080B	UG	SC	Interdisciplinary scientific perspective on Earth system, focusing on human impacts on global environment. Introduces concepts of Earth system science and explores topics such as global warming, ozone depletion, pollution, deforestation, and future climate change.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Climate Fundamentals	OCEA 090	UG	SC	A quantitative introduction to climate comprising five modules: atmosphere-ocean circulation, atmospheric teleconnections, El-Nino Southern Oscillation, the Pacific Decadal Oscillation, and global warming.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Marine Environment	OCEA 101	UG	IS	An introduction to the marine environment stressing the interaction of physical, chemical, geological, and biological factors in the ocean. Provides the oceanographic background needed for studies in marine biology.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Oceans & Climate	OCEA 102	UG	SC	An introduction to Earth's environment, particularly its oceanic and climatic components. Emphasizes interactions between chemical, physical, biological, and geological processes, and fundamentals of past, present, and future global environmental change.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Marine Microb Ecol	OCEA 118	UG	IS	The study of marine bacteria and their role in the marine ecosystem. Emphasis on biochemistry and physiology in relation to metabolic activity and elemental cycles, trophic interactions, and flows of material and energy in marine food webs. Examines human impacts.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Biol Oceanography	OCEA 130	UG	SC	Biological description of the sea, with emphasis on processes and patterns. Topics include microbial dynamics, phytoplankton and zooplankton production, and ecology of marine food webs. Emphasis placed on understanding how physical, chemical, and geological environment shapes biology and ecology of oceans, including such topics as harmful algal blooms, global estimates of productivity, and effects of humans on environment.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Climate Dynamics	OCEA 211	G	SC	Introduction to the dynamics of the Earth climate system. Topics: climate system components, the global energy balance, radiative transfer, the hydrological cycle, general circulations of the atmosphere and ocean, El Nino, the North Atlantic Oscillation, and the Pacific Decadal Oscillation.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Marine Microb Ecol	OCEA 218	G	SC	Recent developments in the study of marine bacteria and their role in the marine ecosystem. Emphasis on biochemistry and physiology in relation to metabolic activity and elemental cycles, trophic interactions and flows of material and energy in marine food webs.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Chemical Oceanograp	OCEA 220	G	SC	A chemical description of the sea: emphasis on the chemical interactions of the oceans with the biosphere, atmosphere, and lithosphere. Topics include biogeochemical cycles and the use of chemical tracers to study oceanic and coastal processes.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Biol Oceanography	OCEA 230	G	SC	Biological description of the sea, with emphasis on processes and patterns. Topics include microbial dynamics, phytoplankton and zooplankton production, and ecology of marine food webs. Emphasis placed on understanding how physical, chemical, and geological environment shapes biology and ecology of oceans, including such topics as harmful algal blooms, global estimates of productivity, and effects of humans on environment.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Marine Geology	OCEA 280	G	SC	Geology of the marine environment. Topics include controls on the types, origin, and distribution of marine sediments; geology of oceanic crust; evolution of continental margins and plate boundaries; and introduction to paleoceanography.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Ocean Sciences	Past Climate Change	OCEA 285	G	SC	Reviews the fundamentals of climate dynamics and explores how Earth's environment is a product of the interaction of its components. Uses examples of climate change from historical and geologic records, and from predictions of the future.	The primary focus is on providing skills and/or knowledge directly connected to understanding or solving one or more major sustainability challenges. A course provides knowledge and understanding of the problem or tools for solving it, for example climate change science.
Physics	Elem Phys of Energy	PHYS 002	UG	IS	The physics of energy developed in a course accessible to non-science majors as well as science majors. Fundamental principles and elementary calculations, at the level of basic algebra, developed and applied to the understanding of the physics of energy.	Topics include fossil fuels, renewable energy, solar cells and waste energy, waste-energy recovery, nuclear power, and global greenhouse effects. Satisfies the PE-E gen ed code and is a requirement for the sustainability minor. Explicitly deals with sustainability issues in energy production and use as a significant part of the syllabus.

Science Communication Program	IntroScienceWriting	SCIC 160	UG	IS	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Science Communication Program	Reporting Sci News	SCIC 201A	G	IS	A survey of the conventions of newspaper journalism and the special application of those conventions to scientific and technological subjects.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Science Communication Program	The Science Feature	SCIC 201B	G	IS	A survey of selected feature articles in the current national science magazines, with attention to strategy, level of complexity, explanation technique, and style. Writing assignments include a publishable feature article.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Science Communication Program	Profile/Essay Writng	SCIC 201C	G	IS	A survey of science and nature profiles and essays. Purpose, content, form, and style are considered. Writing assignments include original profiles and essays on current issues in science, technology, and society.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Science Communication Program	Plicy/Investig Reprt	SCIC 201D	G	IS	Rigorous examination of techniques for reporting topics where science and technology meet public policy and society. Covers essential skills of investigative reporting, including obtaining documents through Public Records Act requests, using online reporting resources, and writing about ethical and legal issues.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Science Communication Program	Multimedia Sci News	SCIC 201E	G	IS	Introduces web-media tools for reporting science stories and enhancing coverage for broad audiences, including video packages, narrated slideshows, podcasts, blogs, and still photography. Laboratory sections address skills for handling equipment and online editing.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Science Communication Program	Writ & Edit Wrkshop	SCIC 202	G	IS	Theory and practice of writing and editing articles on scientific, medical, environmental, and technological subjects for newspapers, magazines, and special publications directed at non-technical readers.	Reporting and writing in this course focuses on Monterey Bay Area issues and UCSC research in the natural and social sciences, including marine science and biology, environmental research and policy, ecology, and conservation science.
Anthropology	Contemporary Issues	ANTH 110A	UG	IS	How can cultural anthropology help us to understand current events unfolding locally, nationally, and globally? Students learn how to "read" newspapers differently—that is, through the lens of cultural analysis. The world of everyday politics and society, as it unfolds in debates happening right now, forms the topical substance of the course.	This course examines ways anthropologists and informed citizens find, evaluate, analyze, synthesize and represent contemporary issues. Course has one module that examines contemporary cultural and social environmental issues.
Anthropology	Global Enviro Change	ANTH 110E	UG	SC	Introduces anthropological and historical approaches to environmental change and globalization. Key themes include: capitalism and industrialization, environmental politics, global culture, and relations between humans and other species.	Reviews how culture and ecology are deeply entangled and how patterns of human movement and cultural connection reshape the possibility for life on local-to-global scales. Explores environmental and sustainability issues including land use, climate change, extinction and waste.
Anthropology	DevelopingCountries	ANTH 141	UG	SC	Focuses on developing countries, those countries experiencing fast deruralization and ecological crises. Students learn the reach of entropic interconnectiveness given the fact that forms of inequality organize the system.	This course examines human rights, social justice, displacement and resettlement and their connection to deruralization and environmental degradation. Examines the social, environmental and economic impacts of displacement and environmental degradation.
Anthropology	Anth & Environment	ANTH 146	UG	IS	Examines recent approaches to study of nature and the environment. Considers historical relationship between nature, science, and colonial expansion as well as key issues of contemporary environmental concern: conservation, environmental justice, and social movements.	This course examines anthropological perspectives of the relationship between societies and their environments. An organizing theme of the course examines how writing about landscapes, plants and animals can be combined with quantitative models which are increasingly important in environmental science and policy, from climate change models to water flow models used by dam managers
Anthropology	Anthropology of Food	ANTH 161	UG	IS	Critically examines food as a fundamental aspect of social and cultural life and key concept in the development of anthropological theory and methods. Topics include: power relationships; community building; exchange and reciprocity; symbolism; cultural rules and rituals; globalization; and memory.	This course examines the importance of sustainable food systems for sustaining cultural identities.
Anthropology	Origins of Farming	ANTH 173	UG	IS	Survey of the ecological and archaeological evidence for the origins of plant and animal domestication in Africa, Eurasia, and the Americas. Discussion will center on the preconditions of this drastic alteration in human ecology and its consequences in transforming human societies.	This course examines the social and ecological relationships inherent in agriculture, foraging and herd agriculture.
Anthropology	Ecolog Discourses	ANTH 249	G	IS	Explores narratives of nature and their practical consequences in contests over "wild places" and their resources. Readings focus on the histories of forests and on analytic frameworks—ecology, social history, interpretation, cultural studies—with which to investigate competing constructions of the environment.	This course examines human/environment interactions in wetlands to understand how anthropogenic landscapes emerge.
Anthropology	Science and Justice	ANTH 267A	G	IS	Considers the practical and epistemological necessity of collaborative research in the development of new sciences and technologies that are attentive to questions of ethics and justice.	This course examines how science, engineering, social and political practices and policies can work together to solve environmental problems and to construct cross-disciplinary conversations and collaborations.
Anthropology	Origins of Farming	ANTH 273	G	IS	Survey of the ecological and archaeological evidence for the origins of plant and animal domestication in Africa, Eurasia, and the Americas. Discussion will center on the preconditions of this drastic alteration in human ecology and its consequences in transforming human societies.	This course examines the social and ecological relationships inherent in agriculture, foraging and herd agriculture.

Economics	Environmental Econ	ECON 170	UG	SC	Economic analysis of environmental issues. Environmental pollution and deterioration as social costs. Economic policy and institutions for environmental control. Influences of technology, economic growth, and population growth on environmental quality.	Focus of this course covers most aspects of the economy's interaction with the environment.
Economics	Nat Resource Econ	ECON 171	UG	SC	The application of economic analysis to the use of renewable and nonrenewable natural resources. Efficiency and distributional aspects of natural resource scarcity. Measurement of the benefits and costs.	This class integrates economic and biological concepts in modeling. It examines how analytical tools must be adapted to address natural resource topics.
Economics	Energy Economics	ECON 175	UG	SC	Applications of micro, welfare, and international economic theory and methodology to the energy field. Questions considered include optimal allocation of natural resources; pricing and investment; regulations and taxes; import and export control; redistributional policies.	This class focuses on the options for improving energy and resources productivity from a technological, economic, and policy point of view.
Environmental Studies	Physcl & Chem Envir	ENVS 023	UG	IS	Provides an overview of the physical and chemical environment of planet Earth. Fundamental chemistry and physics is introduced in the process of learning about Earth in a holistic way. The influence of human societies on the global environment is one focus of discussion. Earth's many "spheres" are explored first: the lithosphere; the atmosphere; the hydrosphere, and the ecosphere. Then global cycles of carbon, nitrogen, and several other elements are studied in the context of basic sciences and societal issues.	This course covers a wide range of topics regarding the physical and chemical environment, with an exploration of how human society has affected these systems. The course also explores how to adapt to, reduce, or reverse the negative impacts humans have had on the environment. Some examples of these effects include water pollution, acid rain, and climate change.
Environmental Studies	General Ecology	ENVS 024	UG	IS	Covers principles of ecology including limits to species abundances, evolutionary ecology, population dynamics, community interactions and patterns, and ecosystem patterns and dynamics.	
Environmental Studies	Enviro Policy/Econ	ENVS 025	UG	SC	Introduces the policy and economic dimensions of some pressing environmental challenges. Uses examples from population, water, climate change, and other topics to examine the economic underpinnings of environmental problems, the process of environmental policy-making, and the trade-offs in different policy solutions.	This course focuses explicitly on the relationship between issues of environmental and economic sustainability, such as population, water and transportation. Through case studies, the course examines the role that policy has played in providing solutions to issues of environmental, social, and economic sustainability.
Environmental Studies	Fresh Water Process	ENVS 065	UG	SC	Introduction to freshwater resources from multiple scientific and policy perspectives. After a review of basic concepts, water issues affecting cities, farms, open space, and multiple-use landscapes are studied.	This course explores water policy, processes, and conservation issues with an emphasis on human use of water and how it affects economics, environment, and human society and health. The class goes on a field trip to a water treatment plant to learn about how this process conserves other water resources and provides water for agricultural use. Topics include endangered freshwater species, water reliability, public and private water systems, water-related disease, water use and costs in cities, hydropower, and climate change.
Environmental Studies	Forecast Globl Warm	ENVS 080B	UG	SC	A broad overview of both ecological and social aspects related to tropical rain forests drawing on case studies worldwide. Topics include the biology and distribution of rain forests, causes and effects of their destruction, and management options to facilitate their conservation.	This course focuses on climate change, examining both the science of what climate change is and how it is affected by human activity, as well as policies about climate throughout the world. In addition to the processes of climate change, the course discusses the effects of climate change and how they impact human society, such as hurricanes, fires, agriculture, and food security. A significant portion of the course is about policy and the politics of environmental movements and climate change.
Environmental Studies	Community /Agroecology	ENVS 091F	UG	SC	Interdisciplinary two-credit seminar designed to introduce students to concepts of community and agroecology in the context of sustainability. Course can serve as a gateway to or as a continuing basis for participation in PICA (Program in Community and Agroecology).	This course examines community and agriculture as a sustainability solution.
Environmental Studies	Ecology and Society	ENVS 100	UG	SC	Introduction to environmental issues in an interdisciplinary matrix. Focuses on three issues at the intersection of ecological questions and social institutions: agroecology and sustainable agriculture; population growth, economic growth, and environmental degradation; and biodiversity conservation and land management. Reviews the important roles of disciplinary abstraction and of the application of that knowledge to context-dependent explanations of environmental problems.	This course explores interdisciplinary approaches to analyzing and addressing environmental problems, including natural science (ecology), social science (political science and policy scholarship), and legal scholarship. It covers a range of research themes, faculty research interests, and courses in the department, some of which relate to sustainability issues. Two of three required texts for the course explore the relationships between people and the natural environment.
Environmental Studies	Ecol & Soc Writ Lab	ENVS 100L	UG	SC	Required writing lab accompanying course 100. Students are introduced to writing in different styles and for different audiences typical of the ecosystem-society interface. Course 100 writing assignments are developed, written, and revised in conjunction with the lab. W credit is granted only upon successful completion of course 100.	This lab is a writing lab that follows the same topics as those covered in ENVS 100, which explores interdisciplinary approaches to analyzing and addressing environmental problems, including natural science (ecology), social science (political science and policy scholarship), and legal scholarship. It covers a range of research themes, faculty research interests, and courses in the department, some of which relate to sustainability issues. Two of three required texts for the course explore the relationships between people and the natural environment.
Environmental Studies	Intro Field Methods	ENVS 104A	UG	IS	A course in the process of field research and monitoring, with emphasis on use of the scientific method: experimental design, data handling, statistical analysis and presentation; and basic field methodologies. Application of basic field skills, including habitat description; methods for sampling plants, animals, soils, water, and microclimate; and observational and manipulative techniques to address ecological, conservation, and management questions.	This course introduces students to methods for studying and addressing conservation and management issues.
Environmental Studies	Field Methods Lab	ENVS 104L	UG	IS	Students directly observe elements of natural history and ecological process; design and implement field studies based on lectures; deploy the methods discussed in lectures; and collect data to analyze, interpret, and report in written and oral forms.	This course introduces students to methods for studying and addressing conservation and management issues.

Environmental Studies	Nat Hist Field Qtr	ENVS 107A	UG	IS	A 15-unit field course that uses California wild lands to develop skills of natural history observation and interpretation. Students gain the ability to identify plants, animals, vegetation types, and landscapes, as well as address the complex issues of preservation and management of these resources.	This field course examines evidence of human impacts on environment and addresses conservation and management strategies.
Environmental Studies	Nat Hist Field Qtr	ENVS 107B	UG	IS	A 15-unit field course that uses California wild lands to develop skills of natural history observation and interpretation. Students gain the ability to identify plants, animals, vegetation types, and landscapes, as well as address the complex issues of preservation and management of these resources.	This field course examines evidence of human impacts on environment and addresses conservation and management strategies.
Environmental Studies	Nat Hist Field Qtr	ENVS 107C	UG	IS	A 15-unit field course that uses California wild lands to develop skills of natural history observation and interpretation. Students gain the ability to identify plants, animals, vegetation types, and landscapes, as well as address the complex issues of preservation and management of these resources.	This field course examines evidence of human impacts on environment and addresses conservation and management strategies.
Environmental Studies	General Entomology	ENVS 108	UG	IS	Introduction to entomology including anatomy, physiology, systematics, evolution, behavior, and reproduction of the world's most diverse group of organisms. These topics are illustrated in several contexts, from the importance of insects as disease vectors to the historical and contemporary uses of insects by humans.	This field course examines evidence of human impacts on environment and addresses conservation and management strategies.
Environmental Studies	Gen Entomology Lab	ENVS 108L	UG	IS	Laboratory sections are devoted to the identification of insects. Individual collections representing 15 orders, sight identification of 60 families, and use of taxonomic keys for positive designations required	This field course examines evidence of human impacts on environment and addresses conservation and management strategies.
Environmental Studies	Ecol Field Methods	ENVS 109A	UG	IS	An intensive, on-site learning experience in terrestrial field ecology and conservation, using the University of California Natural Reserves and other natural areas. Students study advance concepts in ecology, conservation, and field methods for four weeks, then experience total immersion in field research at the UC Natural Reserves and other natural areas. Lectures, field experiments, writing assignments, and computer exercises familiarize students with research methods, study design, statistical approaches, and analytical tools for ecological research. Students complete and communicate the results of short field projects in ecology, learn the natural history of the flora and fauna of California, and plan and execute a significant, independent field-research study at the end of the quarter.	This course teaches techniques for conservation and sustainable management of natural resources.
Environmental Studies	Ecol Fld Mthds Lab	ENVS 109B	UG	IS	Field-oriented course in ecological research. Combines overview of methodologies and approaches to field research with practical field studies. Students complete field projects in ecology and also learn the natural history of the flora and fauna of California. Students are billed a materials fee. Enrollment by application.	This course teaches techniques for conservation and sustainable management of natural resources.
Environmental Studies	Terrestrial Ecosys	ENVS 109C	UG	IS	From lectures and discussion of terrestrial community and ecosystem ecology, students work individually or in small groups to present an idea for a project, review relevant literature, develop a research question/hypothesis, design and perform an experiment, collect and analyze data, and write a report. The instructor evaluates the feasibility of each student's project before it begins.	This course examines human impacts on terrestrial ecosystems and approaches to conservation.
Environmental Studies	Conserv/Practice	ENVS 109D	UG	SC	Focuses on current issues in environmental and conservation biology and the emerging field methods used to address them. From field-oriented lectures about current issues in environmental and conservation biology, students pursue research project as individuals and small groups to develop hands-on experience with field skills in conservation research and resource management.	This course teaches techniques for conservation and sustainable management of natural resources.
Environmental Studies	Inst & Econ Sys	ENVS 110	UG	SC	Debate about environmental policy is often couched in economic terms. Environmental issues have become questions of political economy, as they influence international and domestic policy and reflect on the functioning of the market system. Examines the assumptions and implications of alternative approaches to political economy, as these pertain to questions of environmental policy and political institutions.	This course examines various intersections between economics, politics, and environmental and social justice issues, both historically and contemporarily. By evaluating various perspectives on human nature, policy, the market system, politics, and economics, the course considers the assumptions and alternative viewpoints that exist regarding the balance of human needs and the natural world. Topics include sustainable forest management, energy alternatives, biodiversity conservation, fisheries, and sustainable cities.
Environmental Studies	GIS & Envnmntl Applc	ENVS 115A	UG	SC	Introduction to geographic information systems (GIS) as the technology of processing spatial data, including input, storage and retrieval; manipulation and analysis; reporting and interpretation. Emphasizes GIS as a decision support system for environmental and social problem solving, using basic model building, experimental design, and database management.	The course emphasizes the role of GIS in environmental and social problem-solving and information management of sustainability issues.
Environmental Studies	GIS & Envrn App Lab	ENVS 115L	UG	SC	Exercises in Geographic Information Systems and Remote Sensing that demonstrate the development of digital geographic data. Students gain hands-on experience with developing datasets, using imagery to create GIS layers, performing spatial analysis, and utilizing GPS technology. Emphasis placed on environmental applications. Students cannot receive credit for this course and course 215L.	The course emphasizes the role of GIS in environmental and social problem-solving and information management of sustainability issues.
Environmental Studies	Conservation Biology	ENVS 120	UG	SC	Introduces biological and anthropogenic influences on the diversity and scarcity of organisms. Explores the mathematical models and research tools that provide the foundation for many conservation and management decisions regarding endangered and/or declining species. Topics explored in the context of various examples of conservation decision-making in the real world.	Introduction to the practical application of biological principles to conserving biodiversity.
Environmental Studies	Tropical Ecology	ENVS 122	UG	SC	An introduction to the ecological processes, principles, and players of tropical ecosystems, and to conservation issues facing tropical American forests. We will look at how tropical ecosystems work, roles of humans in shaping them, and current conservation opportunities and dilemmas.	This course focuses on conservation issues and human impacts on ecosystems.
Environmental Studies	Animal Ecol/Cnsrvtn	ENVS 123	UG	SC	Advanced course in animal ecology and conservation focusing on the ecology, behavior, biogeography, and evolution of vertebrates.	This course focuses on conservation issues and human impacts on environments

Environmental Studies	Integ Pest Managem	ENVS 129	UG	SC	Provides an extensive coverage of applied ecology, pest control technology, and the social, political, and economic factors regulating the ideologies and practice of pest management. Topics include agroecosystem design and population regulation of insects, weeds, vertebrates, and pathogens; field monitoring, chemical and biological control; economic thresholds, decision-making processes, and the role of agribusiness.	Focus on alternatives to pesticides for sustainable agriculture
Environmental Studies	Int Pest Mgmt Lab	ENVS 129L	UG	SC	Field trips and field exercises that demonstrate the practice of integrated pest management techniques. Individual and group projects provide hands-on experience with field sampling techniques, pest identification, recognition of biological control agents, experimental design, interview techniques, data interpretation and field report writing.	Focus on alternatives to pesticides for sustainable agriculture
Environmental Studies	Agroeco & Sust Ag	ENVS 130A	UG	SC	Ecological concepts and principles are applied to the design and management of sustainable agroecosystems. Alternatives for agriculture are discussed in terms of ecosystem structure and function.	Teaches principles of sustainable agriculture and their implementation
Environmental Studies	Sustainable Agricul	ENVS 130B	UG	SC	Agricultural sustainability is examined as a complex set of interactions between ecological, social, and economic components of an agroecosystem. Case studies are drawn from issues facing current U.S. agriculture and a basis for formulating policy for change that ensures sustainability is developed.	Focus on institutions, policy and social dimensions of agricultural sustainability
Environmental Studies	Agroeco & Sust Lab	ENVS 130L	UG	SC	Laboratory and field exercises to train in the analysis of ecological processes in agricultural systems, with a focus on the quantification of ecological sustainability. Experimental design, analysis, and data interpretation are emphasized.	Laboratory class examines how agricultural and ecosystems interact with one another and the effectiveness of sustainable agriculture.
Environmental Studies	Insect Ecology	ENVS 131	UG	IS	Advanced course in ecology featuring insect-plant interactions such as herbivory, pollination, and the effects of plants on insect population dynamics. Lectures emphasize current controversies in ecological theory and relate theory to application.	This course focuses on insect conservation and biodiversity.
Environmental Studies	Agroeco Practicum	ENVS 133	UG	SC	Lectures and demonstrations are combined with field applications to give students direct experience and knowledge of sustainable agriculture and horticulture practices and principles. UCSC Farm and Garden are the living laboratories for testing agroecological principles. Emphasis is placed on small-farm systems.	This course provides students with training on methods for sustainable agriculture and horticulture.
Environmental Studies	Natl Environ Policy	ENVS 140	UG	SC	An overview of all major federal environmental policy domains. Analyzes political, social, economic, and other forces influencing federal (and some state) public policy responses to land use, natural resources, pollution, and conservation dilemmas.	This course surveys critical environmental issues and policies of the United States, exploring public policy concepts and instruments and their application to specific environmental issues. The course examines topics such as air quality, recycling, water, environmental justice, energy, and toxic waste with focus on public policy dilemmas, theory, and practice.
Environmental Studies	Ecological Econ	ENVS 141	UG	SC	Application of economic analysis to natural resource policy and management. Topics include welfare economics, property rights and externalities, natural resource valuation, exhaustible and renewable resources, and sustainable development. Prerequisite(s): Economics 1 is strongly recommended as preparation.	This course introduces economic approaches to evaluating environmental issues. Course outcomes include learning how to discuss environmental problems and policy using economic frameworks, identifying limitations in doing so, and learning some of the conflicts between economists and ecologists.
Environmental Studies	Energy Politics	ENVS 142	UG	SC	Explores the social and environmental dimensions of energy production and consumption. Provides an overview of the tools to evaluate a new clean-energy economy and its wider political and economic implications. Students study assessment tools, such as risk assessment, material energy balances, and life-cycle assessment	This course focuses on particular energy problems that demonstrate complex challenges of energy policy and politics, such as climate change policy, "hidden costs of energy," and fracking. It examines renewable energy technologies, fossil fuels, and the challenges in creating sustainable policies.
Environmental Studies	Sustain Development	ENVS 143	UG	SC	Considers whether and how global poverty can be alleviated without irreparably damaging the environment. Examines interactions among population, economic growth, poverty, global consumption ethos, property rights systems, global economy, state capacity, and environmental damage. Scrutinizes impact of various developmental strategies adopted during the past 50 years on poverty, governance, and the environment.	This course examines the topic of sustainable development, with an emphasis on specific topics related to the region of Latin America. The course is designed to critically examine relationships between politics, environment, and economic development, exploring ecological, economic, political, social and cultural change that have occurred during the second half of the twentieth century across Latin America. Topics include modernization, fair trade, conquest, ecotourism, and climate change.
Environmental Studies	Green Bldg Design	ENVS 145	UG	SC	Promotes an ecological approach to design with an understanding of the environmental opportunities and constraints at play on the site and situation; works with the environment to maximize human comfort and energy efficiency.	This course examines the environmental impacts of buildings and cities, as well as ways to design them with the environment in mind. Beginning with concepts of human development, the global ecosystem, and the impacts of our build environment on natural ecosystems, the course covers topics such as green architecture, energy and carbon footprints associated with construction, indoor air quality, LEED, and urban planning in Europe.
Environmental Studies	Env Ineq/Env Justice	ENVS 147	UG	SC	Reviews research on race, class, and differential exposure to environmental hazards. Shows how environmental inequality has, from the start, been an essential feature of modernity. Situates the environmental-justice movement in the history of American environmentalism. Students cannot receive credit for this course and Sociology 185.	This course focuses on the environmental inequalities facing different groups of people and how those communities have worked for environmental justice. It also examines the origins of environmental racism, injustices, and socio-economic factors that perpetuate environmental inequality. Examples of these inequalities include communities near toxic industrial areas, pesticide use, polluting energy plants, hazardous areas like flood zones, hazardous waste, and high rates of occupational disease and illness

Environmental Studies	Envr Law & Policy	ENVS 149	UG	SC	Surveys a wide range of topics in environmental law, including state and federal jurisdiction, administrative law, separation of powers, state and local land use regulation, public land and resource management, pollution control, and private rights and remedies. Students read a large number of judicial cases and other legal documents.	This course explores how environmental law is created, evaluated, and enforced at various levels of government, focusing primarily on federal environmental laws that have been the primary drivers and guidelines for environmental legal issues since the 1960s. Examples include National Environmental Policy Act, Clean Air Act, California Environmental Quality Act, and the Endangered Species Act, examining the different kinds of policies these represent.
Environmental Studies	Coastal/Marine Policy	ENVS 150	UG	SC	Introduces and analyzes the history, design, implementation, and effectiveness of key legal and institutional frameworks that govern the use and stewardship of coastal and marine areas and resources. Primary focus is on the U.S., although attention is also devoted to international laws and institutions targeting major transboundary issues like marine pollution and management of migratory fish stocks.	This course focuses on coastal and marine stewardship by examining legal, policy, and institutional frameworks that govern use of resources in these areas. It reviews conservation through various lenses: ecology, political science, public policy, law, and history. Topics include water quality protections, the coast as a public resource, climate change, wetlands policy, and oil spills.
Environmental Studies	Environm Assessment	ENVS 151	UG	SC	Introduction to California land use planning law and practice, and the theory, practice, and public policy aspects of environmental assessment, using the California Environmental Quality Act (CEQA) as a model. The National Environmental Policy Act (NEPA) and other environmental and planning legislation also considered. Covers elements of State law and regulations, environmental impact assessment requirements, and practical procedures for preparing and evaluating CEQA documents, with case studies that exemplify legal, regulatory and public policy and practice aspects of the assessment process.	This course surveys California land use policy, planning, and theory within the context of assessing environmental factors. Policies discussed include the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and international systems. Environmental Impact Reports and other assessments are examined.
Environmental Studies	Amazon Cultur/Consv	ENVS 154	UG	SC	Overview of human societies in the Amazon from both a historical and contemporary perspective. Topics include indigenous resource management, deforestation, conservation politics, culture, and economic change.	This course focuses on indigenous cultures in the Amazon and their adaptation in the face of environmental, economic, and social changes. It explores histories of contact, social organization, resource management techniques, cultural characteristics, and mixed subsistence and market economies. Topics include fortress conservation, hydroelectric power projects, and human rights.
Environmental Studies	Pol Ecol & Socl Chg	ENVS 158	UG	SC	The object is to provide a rigorous grounding in the method of political ecology and to demonstrate how this approach has been used in environmental analysis and problem solving by environmental social movements.	This course examines the political economy of environmental problems and the issues surrounding human-environment relations. It explores environmental change and broader political, economic and cultural issues that intersect with these changes. Topics include deforestation and land degradation, famine, conservation, extractive industries and climate change.
Environmental Studies	Nature Literature	ENVS 159	UG	SC	Introduction to 19th- and 20th-century American writers who have influenced our understanding of humans' place in the natural world. Readings include original works as well as biographical and critical texts. Discussions, field trips, and writing assignments emphasize active learning.	Examination of human interaction with environments and ecosystems through literature.
Environmental Studies	Restoration Ecology	ENVS 160	UG	SC	A multidisciplinary overview of restoring degraded ecosystems. Among the topics addressed are linkages between ecological principles and restoration, planning and implementing restoration projects, evaluating restoration success, and case studies of restoration of specific ecosystem types. Participation in one work day is required.	This course explores knowledge needed to restore damaged ecosystems, as well as how to implement restoration projects through planning, legislation, and financing. Though the intention of the course is to study restoration, much of the course focuses on ecology and biological processes.
Environmental Studies	Soil/Plant Nutriton	ENVS 161A	UG	IS	Provides fundamentals of soils and plant nutrition. The physical, biological, and chemical components of soils are investigated in relation to their ecological functions, fertility to plants, and sustainable management.	Though this course primarily focuses on the fundamentals of soils and plant nutrition, it also explores sustainable management and the role of soils in connecting human society with the natural environment. Topics include soil pollution, water resources and irrigation, and soil management.
Environmental Studies	Soil/Plnt Nutri Lab	ENVS 161L	UG	IS	Practice analytical techniques for evaluation of physical, chemical, and biological properties of soils. Grow plants to observe some typical symptoms of plant nutrient deficiencies.	This course examines methods for studying pollution, water and soil quality.
Environmental Studies	Plant Phys Ecology	ENVS 162	UG	IS	Describes how the environment affects plants through the linkages between water, energy, nutrients, photosynthesis, and plant growth. Demonstrates how plant recruitment, survival, and reproduction affect conservation and agriculture. Prior coursework in ecology and/or plant physiology is recommended.	This course examines conservation, restoration, agroecology thus providing a sustainability context.
Environmental Studies	Plant Phys Ecol Lab	ENVS 162L	UG	IS	Introduces techniques for the study of plant interactions with the physical environment. Examines the role of stress on energy budgets, water relations, photosynthesis, and reproductive allocation. Emphasizes experimental design, field techniques, and instrumentation during field trips to local chaparral and grassland ecosystems.	This course examines conservation, restoration, agroecology thus providing a sustainability context.
Environmental Studies	Plant Disease Ecol	ENVS 163	UG	IS	Introduction to ecological roles of plant diseases, including their importance in regulating plant population dynamics, community diversity, and system function in natural ecosystems; considerations of plant diseases in conservation ecology; and ecological approaches to managing diseases in agroecosystems.	This class examines how changing disease ecology influences disease prevalence and how such changing patterns of disease have influenced human history as well as the role of conservation ecology in addressing disease.
Environmental Studies	Plant Disease Lab	ENVS 163L	UG	IS	Introduction to techniques for studying plant diseases, including detection, isolation, cultivation, and identification of important groups of plant pathogens, completing Koch's postulates; diseases assessment techniques; experimental manipulation of plant-pathogen systems; and basic epidemiological tools. One field trip required.	Field methods for studying plant diseases addressing

Environmental Studies	Fresh Water Policy	ENVS 165	UG	SC	Concepts, vocabulary, and skills necessary to the analysis of freshwater issues are introduced from hydrology, ecology, law, economics, engineering, and other disciplines. The skills are then applied to case studies involving local, state, and international freshwater conflicts and crises.	This course focuses on the use of water in the United States, including issues facing water users, policies affecting the use of water, and solutions to water issues. Topics include hydrology, politics, ecology, law, the Clean Water Act, toxins, farming, and food security in relation to water use.
Environmental Studies	Agroecosys Analysis	ENVS 166	UG	SC	Explores a range of approaches to examine agroecosystem function, watershed management, and concepts of sustainability. Uses a combination of lecture, demonstration, field work, and field trips to illustrate approaches to analysis of managed ecosystems behavior and the integration of biophysical and socio-political knowledge to aid in watershed management.	This course is focused on agroecosystems, sustainable management of watersheds, and the biophysical as well as social and political knowledge needed for managing these systems. Students conduct research on ecological, biophysical, or socio-economic aspects of agroecosystem function.
Environmental Studies	Freshwater/Wetland	ENVS 167	UG	SC	Field and lecture course teaches the physical and biological patterns and processes in freshwater and wetland systems, primarily focusing on Central Coast systems from headwaters to coastal marshes.	Though this course focuses on the physical and biological patterns and processes in freshwater and wetland ecosystems, it also connects these topics to human-nature conflicts over water use and how environmental scientists determine the health of freshwater ecosystems. The class asks students to analyze environmental problems that involve conflict over freshwater and wetland ecosystems, evaluating them in an ecological framework, and describe examples of current freshwater and wetland issues in the Central Coast and throughout the world.
Environmental Studies	Freshwater Eco Lab	ENVS 167L	UG	SC	Provides basic skills to assess chemical, biological, and physical characteristics of freshwater creeks, rivers, and wetlands. These skills are needed in environmental consulting, municipal agencies engaging in water management or impacts on water, and regulatory agencies. Relies on methods in geomorphology, biogeochemistry, hydrology, and field biology.	Field methods for studying sustainability issues associated with freshwater.
Environmental Studies	Biogeo/Global Environ	ENVS 168	UG	SC	Studies biogeochemical cycles and related environmental issues such as global environmental change, eutrophication, ecosystem degradation, and agricultural sustainability. Discusses transformation and movement of major nutrient elements in context of watershed ecology and societal implications.	This course explores biogeochemical cycles and related environmental issues such as global environmental change, eutrophication, and acid deposition. Topics include aerosols, agriculture, and nutrient cycling.
Environmental Studies	Climate Change Eco	ENVS 169	UG	SC	Advanced topics in atmospheric science and ecological theory. Topics include impacts on biodiversity, carbon sequestration, sustainable agriculture, and innovative solutions.	This course focuses on the human-caused effects of climate change on a global scale, including the effects and issues of population growth, human-influenced species movement, biodiversity loss, and many ways that ecosystems are affected by global change.
Environmental Studies	Topics in ENVS	ENVS 171	UG	IS	Readings and discussions of primary literature on a current environmental topic. Emphasizes experiential learning and research. The topics vary; consult current course listings.	Topics vary, but include examination of human environment interaction.
Environmental Studies	EnvRisks/PubPolicy	ENVS 172	UG	SC	Introduces students to the dilemmas in public policy relating to the management of environmental risks, and discusses their underlying philosophical underpinnings. Explores emergent alternatives, such as the precautionary principle and alternatives assessment, and examines the relationship between experts and the lay public in public controversies. (Formerly Science, Policy, and the Environment.)	Examines challenges in public policy when dealing with environmental problems.
Environmental Studies	World Envir History	ENVS 173	UG	SC	Introduces students to some of the central issues in world environmental history such as: human attitudes toward the natural environment; the role of human societies, their institutions and technologies in changing the face of the earth; and the historical impact of environmental and developmental policies on race, class, and gender differences in a variety of human communities across the world.	This course explores human-environment relationships throughout human history, examining the environment-climate, geology, soil, water, plants, and animals—as a presence and agent in human history. Topics include disease, agriculture, environmental degradation, war, famine, crises, and conservationism in a global context, paying particular attention to how those subjects intersect with race, class, and gender. Themes of the course include colonialism, industrialization, science, poverty, technology, and policy.
Environmental Studies	Disasters	ENVS 176	UG	IS	Introduces students to the research on the relationship between vulnerability and disasters, and on complex systems including hazardous technologies. Explores perspectives on disasters in the literature on political ecology. Also examines relevant work of organizational sociology, and related fields including normal accident and high reliability organizational theories.	Examines the role of climate change in disaster.
Environmental Studies	TeachEnvironEduc	ENVS 177	UG	IS	Designed for environmental studies majors interested in teaching environmental education in the K-12 school system. Students investigate incorporation of environmental education in the classroom; design an environmental education school project; and are placed in a school where they observe environmental education in practice.	includes sustainability- specifically how to teach about human impacts on environment
Environmental Studies	Capstone:EnvrProblem	ENVS 190	UG	SC	A synthetic course that draws on the knowledge and skills students bring from other courses in the major. Focuses on written and oral individual and group projects in which students must take the initiative. Emphasizes developing skills critical for students in their future careers.	Since the major focuses on issues between social, biological and economic systems the capstone courses allow students to address the sustainability issues that arise from these intersecting realms.
Environmental Studies	Community/Agroecology	ENVS 191F	UG	SC	Interdisciplinary two-credit seminar designed for upper-division students who want to become involved in PICA (Program in Community and Agroecology) and to explore concepts of community and agroecology as they relate to sustainability. Also emphasizes development of leadership skills. Specific topics and readings change each quarter.	Practicum in sustainable agriculture
Environmental Studies	Keywords And Concepts: Geography And Ecology	ENVS 201A	G	SC	Exploration of keywords and concepts that underlie interdisciplinary work in environmental studies through lectures, directed readings, and discussion. Modules include resonant concepts in ecology and society; ecology and evolution; environment and development; the global environment and society; agroecology and conservation biology.	Covers broad base of literature surrounding sustainability

Environmental Studies	Keywords And Concepts: Biogeochemistry And Environmental Policy	ENVS 201B	G	SC	Exploration of the keywords and concepts that underlie interdisciplinary work in environmental studies through lectures, directed readings, and discussion. Modules include resonant concepts in economics and public policy, biogeochemistry, and global change.	Covers broad base of literature surrounding sustainability from perspectives of ecosystem science management and policy
Environmental Studies	Pol Econ, Sustain	ENVS 210	G	SC	Provides an introduction to social scientific analyses of the relationships between capitalistic development and the environment in the late 20th century. It has a dual purpose: First, to develop a contemporary historical understanding and sensibility of how economic change, new institutional configurations, and world scale processes are shaping interactions with the environment. Second, to examine some recent political social theoretical perspectives on nature-society relations and radical environmental and social movements.	This course focuses on understanding intersecting historical issues of environment, society and economy including theory on social movements.
Environmental Studies	Gis & Envnmntl Applic	ENVS 215A	G	SC	Introduction to geographic information systems (GIS) as the technology of processing spatial data, including input, storage and retrieval; manipulation and analysis; reporting and interpretation. Emphasizes GIS as a decision support system for environmental and social problem solving, using basic model building, experimental design, and database management.	The course emphasizes the role of GIS in environmental and social problem-solving and information management.
Environmental Studies	GIS & Envrm App Lab	ENVS 215L	G	SC	Exercises in Geographic Information Systems and Remote Sensing that demonstrate the development of digital geographic data. Students gain hands-on experience with developing datasets, using imagery to create GIS layers, performing spatial analysis, and utilizing GPS technology. Emphasis placed on environmental applications.	The course emphasizes the role of GIS in environmental and social problem-solving and information management.
Environmental Studies	Conservaton Biology	ENVS 220	G	SC	The principles of conservation biology, including a review of the core disciplines of demography, population genetics, island biogeography, and community ecology and discussion of area and edge effects, population viability, and ecosystem issues related to the maintenance of biological diversity, especially in fragmented landscapes.	Introduction to the practical application of biological principles to conserving biodiversity.
Environmental Studies	Agro & Sustain Agri	ENVS 230	G	SC	The application of ecological concepts and principles to the design and management of agricultural systems. The long-term goal of sustainable agroecosystems is examined in economic, social, and ecological contexts.	The explicit focus of this course is sustainable agriculture for which concepts and theories of ecology and ecosystem science are applied to agroecosystem management for sustainable food systems.
Environmental Studies	Policy & Conservatn	ENVS 240	G	SC	Introduction to political and economic approaches to policy analysis, with particular reference to natural resource scarcity, property rights, and environmental conservation. Case studies apply economic and policy process concepts to the management of public lands, biodiversity, and renewable resources.	Interdisciplinary course apply economic and policy process concepts to sustainability problems.
Environmental Studies	Adv Topics In Envs	ENVS 280	G	SC	Intensive research seminar, including reading and critique of primary research literature and research in progress. Topics vary and are announced in advance; students should consult with faculty prior to enrolling.	Intensive research seminar on sustainability issues.
Environmental Studies	Adv Readings In Envs	ENVS 291	G	SC	Focusing on a recently published volume or on a topic of current interest, this seminar requires a rigorous analysis of the principles and methods employed in the four core areas of the program: sustainable agriculture and agro-ecology; conservation biology; environmental policy analysis; and political economy.	This course focuses on principles and methods in environmental studies, including sustainable agriculture, conservation, environmental policy and politics.
Environmental Studies	Trop Ecol Agric Dev	ENVS 291D	G	SC	Analyzes recent publications in ecology, conservation, agroecology, and development in tropical and subtropical regions, particularly Latin America. Discussions place special emphasis on integration across natural and social science disciplines to address issues of sustainability in tropical regions.	This course addresses sustainability issues in tropical regions.
Latin American and Latino Studies	Environmental Justice	LALS 164	UG	SC	Introduces students to participatory-action research, which both creates positive social-environmental change and contributes to scientific knowledge. Through collaboration with environmental justice organizations, students develop research skills, hone critical reflection abilities, and understand the connections between race, ethnicity, power, poverty, and environmental problems	This course examines how environmental burdens are disproportionately placed on some communities and not others and the role of race, ethnicity, gender, economic capacity, national origin, and education level in determining the level of environmental burden experienced.
Politics	Envr Law & Policy	LGST 149	UG	SC	Surveys a wide range of topics in environmental law, including state and federal jurisdiction, administrative law, separation of powers, state and local land use regulation, public land and resource management, pollution control, and private rights and remedies. Students read a large number of judicial cases and other legal documents.	This course explores how environmental law is created, evaluated, and enforced at various levels of government, focusing primarily on federal environmental laws that have been the primary drivers and guidelines for environmental legal issues since the 1960s. Examples include National Environmental Policy Act, Clean Air Act, California Environmental Quality Act, and the Endangered Species Act, examining the different kinds of policies these represent.
Politics	Global Politics	POLI 070	UG	IS	Can common global interest prevail against particular sovereign desires? Surveys selected contemporary issues in global politics such as wars of intervention, ethnic conflict, globalization, global environmental protection, and some of the different ways in which they are understood and explained.	Examines global environmental protection politics
Politics	Ca Water Law/Policy	POLI 132	UG	SC	Explores the rich history and fundamental legal concepts surrounding water in California. Students identify, evaluate, and debate some critical water policy questions faced by Californians today and in the future.	Examines human impacts on water, water conservation from policy perspective
Politics	Political Economy	POLI 174	UG	SC	Focus on global environmental "problematique" and how it is being played out in a variety of political economic, and social arenas. Includes technical overview of environmental movements, green economics, energy and resource issues, and sustainable approaches.	Focuses on environmental problems in political and social arenas.
Politics	Pol Ecology and Ecological Politics	POLI 190I	UG	SC	Examines a range of ecological philosophies and their implications for politics, economics, social action, and the Earth. Themes addressed in relation to political ecology include: liberalism, historical materialism, the nature/culture divide, justice, feminism, and critical theory.	Specific focus on how ecological philosophies shape politics.

Social Sciences General	SDS: Green Justice	CMMU 042J	UG	SC	Explores the need for social justice in the expanding green economy. Pulling from the environmental, civil rights, women's rights, queer, and environmental justice movements, course explores paths of success and failure in creating a green economy for all	This course examines current environmental issues such as climate change, fossil fuel dependence, the disproportionate affects of toxic waste and pollution. Students will also examine the range of potential solutions and potential obstacles.
Social Sciences General	Agri Food/Soc Justice	CMMU 186	UG	SC	Examines the primary ways in which activists are attempting to resist, provide alternatives to, and/or transform aspects of the food system using social and environmental justice frameworks to evaluate such activism. Topics explored include organic farming, food charity, fair trade, relocalization, and farmworker organizing.	Examines food justice issues.
Social Sciences General	Economic Justice	CMMU 141	UG	IS	Examines how markets operate within the political economy of contemporary capitalism to generate myriad and often chronic forms of economic and social inequality in the United States. Explores different approaches to addressing inequality within the multi-faceted economic justice movement.	Since economic justice is concerned with economic sustainability of people, it is a sustainability topic insofar as you cannot have social justice without environmental justice.
Social Sciences General	Pol Econ Food & Ag	CMMU 149	UG	IS	Examines key concepts in agrarian political economy; the historical development of the world food system; and a selection of contemporary issues related to food production, consumption, distribution, and regulation.	Examines justice issues associated with food production and distribution.
Social Sciences General	Public Health	CMMU 160	UG	IS	Examination of community activism to address health issues: examples are drawn from a range of concerns, e.g., environmental racism, prison conditions, feminist health matters, the AIDS epidemic, violence, and alcoholism. Special attention is given to the social frameworks of health and to the utilization of social and political strategies for improving community well-being.	This course examines public health issues that arise from environmental problems.
Social Sciences General	Comm Grdns Soc Chng	CMMU 162	UG	SC	Examines history, theory, and practice of community gardening, emphasizing contemporary garden projects using the transformative power of direct contact with nature to effect social change. Aims include understanding the nonprofit sector's response to social problems with novel programs and practices.	This course examines the role of community gardens in achieving social change and addressing sustainability issues such as food security.
Social Sciences General	Agri Food/Soc Justice	CMMU 186	UG	SC	Examines the primary ways in which activists are attempting to resist, provide alternatives to, and/or transform aspects of the food system using social and environmental justice frameworks to evaluate such activism. Topics explored include organic farming, food charity, fair trade, relocalization, and farmworker organizing.	This course examines food justice issues.
Sociology	Intro Sociology	SOCY 001	UG	IS	A systematic study of social groups ranging in size from small to social institutions to entire societies. Organized around the themes of social interaction, social inequality, and social change.	Includes a section on environmental sociology.
Sociology	IntrGlobal InfoEnterp	SOCY 030A	UG	IS	The first class in a three-quarter sequence that prepares students for designing social justice and sustainability projects using social-enterprise methodologies to transfer information and communications technologies (ICT) to community and non-governmental organizations. Tuesday's class topics include globalization, info-exclusion, social justice, information revolution, global civil-society networks, social entrepreneurship, and organizational assessment. Thursday's technical laboratory teaches students to develop practical ICT skills for working solidarity with community organizations in areas such as web design, graphic design, and digital networking.	This course helps students implement a sustainability project.
Sociology	Design ICT Projects	SOCY 030B	UG	IS	Covers designing "doable" ICT-based projects to support the goals of community and NGOs. Topics include: social entrepreneurship/enterprise case studies; step-by-step project design; integrating social and technical solutions; project management. Technical topics include: Internet resources; advanced web/database design; computer networks/maintenance.	This course helps students implement a sustainability project.
Sociology	Project Implementn	SOCY 030C	UG	IS	Covers conversion of ICT project into a fundable grant proposal for social justice, integration of social activism, entrepreneurship and justice, and implementation of project. Topics include: funders, proposal design, field methods, project assessment, innovative ICT applications, action research methods.	This course helps students implement a sustainability project.
Sociology	Contem Soc Theory	SOCY 105B	UG	IS	Surveys major theoretical perspectives currently available in the discipline including functionalism, symbolic interactionism, ethnomethodology, conflict theory, critical theory, neo-Marxism, feminist theory. (Formerly Contemporary Sociological Theory.)	Includes section and discussions on current environmental/social issues and relation to contemporary theory.
Sociology	Sustainable Design	SOCY 115	UG	SC	Working collaboratively in group interactive laboratories, students assess the effectiveness of various forms of public and private decision-making in the creation of a sustainable future.	Focuses on understanding sustainability as a process of making sense of environment and social crisis
Sociology	Society & Nature	SOCY 125	UG	SC	A healthy society requires a stable and sustainable relationship between society and nature. Covering past, present, and future, the course covers environmental history of the U.S., the variety and extent of environmental problems today, and explores their likely development in our lifetimes.	Focuses on the relationship of people and nature, including environmental activism
Sociology	Socy Of Food	SOCY 130	UG	SC	Following food from mouth to dirt, explores the politics, economy, and culture of eating, feeding, buying, selling, and growing food. Topics cover both the political economy of the food system as well as how body and nature are contested categories at either "end" of this system.	Includes sections on sustainable food systems
Sociology	Devel & Underdevelp	SOCY 167	UG	IS	Examines contemporary debates about development in the Third World: alternative meanings of development, recent work on the impact of colonial rule, how some economies have industrialized, ideas about agrarian change, and recent research on paths out of poverty. Students work in pairs to examine a development in one country since World War II.	Includes sections on industrialization, and sustainable and non-sustainable development
Sociology	Social Movements	SOCY 172	UG	IS	Through readings on social movements that span the 20th century, course examines the causes of popular mobilizations, their potential for rapid social change, and the theories developed to understand and explain their role in modern social life.	Social movements includes discussion of sustainable "guerilla gardening"
Sociology	Water	SOCY 173	UG	SC	Analyzes access to clean water, both in the American West and global South. Reviews water quality, pivotal role of water in settlement and society, history and contemporary inequalities, water supplies, international conflict over water, climate change, and human use of water.	Focuses on issues and applications of water sustainability included through course and assignments.

Sociology	Urban Sociology	SOCY 177	UG	IS	Historical and contemporary examination of urban life including community, race, geography, urban and suburban cultures and lifestyles, stratification, housing, crime, economic and environmental issues, demographic changes, and global urbanization.	Includes urban planning, policy, sustainability, and exploring the new Critical Sustainabilities project/website
Sociology	Eco-Metropolis	SOCY 177E	UG	SC	Explores the intersection of cities and the environment through the emerging field of urban environmental studies. Focuses on varied and often contested efforts at "urban sustainability" in recent history. Draws on literatures in environmental history, environmental and urban sociology, geography, political ecology, and cultural studies.	Includes discussions, readings and assignments around urbanization and environment, urban planning, the rise of sustainable planning, approaches to urban sustainability including: Just Sustainability; food justice; space, place and culture; urban political ecology; CA and sustainability; and urban agriculture
Sociology	Nature,Poverty,Prog	SOCY 179	UG	SC	Concerns about environmental change, including global warming, threats to the ozone layer, and industrial pollution, raise questions about Third World development. Simple views of the relation between society and nature, such as blaming population growth, industrialization, or poor people, seem to preclude higher living standards. Uses debates and case studies to explore more subtle and optimistic views of social-natural relations. Focuses on international development and the environment, including environmental impacts and sustainable cities.	Focuses on international development and the environment, including environmental impacts and sustainable cities