Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Alagona, Peter	Environmental Studies; History	Environmental Humanities Initiative	Professor Alagona's research focuses on biological diversity and endangered species. His recently published book, titled "After the Grizzly: Endangered Species and the Politics of Place in California," explores the history of endangered species conservation in California and beyond. Professor Alagona is also involved in studying the history of the UC Natural Reserve System and its contributions to environmental science and management in a project titled "A Sanctuary for Science."	http://www.history.ucsb.edu/peop le/person.php?account_id=284
Alario, Celia	Environmental Studies		Celia Alario has worked as a journalist and producer. She was a field producer on Michael Moore's Emmy-nominated television show "The Awful Truth" and produced and hosted news programming at Pacifica Radio's KPFA in Berkeley, California and KZMU in Moab, Utah. She has served as an Engagement Producer, designing outreach campaigns for a number of award-winning documentaries and television programs, including Firestorm, On Coal River, Sir! No Sir!, The Greater Good, Bowling for Columbine, Trade Off and Building Green	
Anderson, Sarah	Political Science; Bren		Along with her other policy studies, Dr. Anderson has done research on environmental politics, environmental representation, and post-fire treatment in the Western US. Her research speaks to the environmental policy realm. Her current projects include work on the framing of environmental politics and how ecological, political, and economic factors affect forest management.	http://fiesta.bren.ucsb.edu/~sand erson/
Auston, David	Engineering	UCSB Institute for Energy Efficiency	Dr. Auston's research is in the field of picosecond and femtosecond optics and their applications to nonlinear optics and solid-state materials. He helped establish the field of ultrafast optoelectronics, which uses picosecond and femtosecond lasers to measure, with very high time precision, the dynamic electronic properties of materials. Dr. Auston's primary activity is to coordinate the applied research programs of the 10 UC campuses with regard to the UC Carbon Neutrality Initiative. As a member of the UC President's Global Climate Leadership Council, he is centrally involved in helping direct research that will advance the UC toward its goal to achieve zero greenhouse gas emissions by 2025.	
Bamieh, Bassam	Mechanical Engineering	Department of Mechanical Engineering, Center for Control, Dynamical Systems and Computations (CCDC), and Institute for Energy Efficiency (IEE)	Dr. Bamieh's research is in the area of controls engineering, which underlies most automation technologies that make machines and processes smart and adaptive. He is currently working on the design of smart thermoacoustic energy conversion devices in which mechanical work is done by powerful pressure waves rather than pistons or turbines. These devices convert heat to acoustic power with relatively high efficiencies and almost no moving parts, and they are particularly suited to small-scale solar thermal power applications.	http://engineering.ucsb.edu/~bam ieh/
Banerjee, Kaustav	Electrical & Computer Engineering	California NanoSystems Institute	Dr. Banerjee is currently researching the physics, technology, and applications of low-dimensional nanomaterials for next-generation green electronics, photonics, and bioelectronics. These nanomaterials can be used to design low-power, low-loss, and ultra-energy efficient active and passive nanoelectronic devices. His group is innovating tunneling transistors based on atomically-thin layered semiconducting materials that can provide a new platform for next-generation energy-efficient computing and sensing, and thereby accelerate emerging application paradigms such as the Internet of Things that promises unprecedented connectivity of people and information, and also lead to significantly lower carbon emissions.	http://nrl.ece.ucsb.edu/
Barandiaran, Javiera	Global and International Studies		Dr. Barandiarán's research is focused on environmental politics. It aims to understand how states come to know about the environment in order to regulate it. Currently, Dr. Barandiarán is working on a book that explores four environmental conflicts in Chile. This research focuses on the ways in which the Chilean state organizes, accesses, and believes in environmental information since the end of the Pinochet regime. The environmental conflicts include a toxic waste spill by a paper and pulp mill in Valdivia, the mine at Pascua Lama, the virus ISA in salmon farming, and the hydroelectric dams of HidroAysén.	http://www.global.ucsb.edu/peopl e/academic/javiera- barandiar%C3%ATn
Bazan, Guillermo	Chemistry/Biochemistry	Institute for Energy Efficiency; Center for Polymers and Organic Solids; Institute for Collaborative Biotechnologies; Mitsubishi Chemical; Center for Advanced Materials; Center for Energy Efficient Materials; California NanoSystems Institute	As winner of the Grand Challenges Explorations grant, Dr. Bazan has investigated semiconducting molecules that penetrate organism membranes. This research is used to convert wastewater into energy, a piece of technology which can help alleviate world sanitation problems. He has also pioneered the use of molecular and semiconducting polymers for the fabrication of organic solar cells using environmentally friendly methods.	http://www.chem.ucsb.edu/~baza ngroup/

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Bazerman, Charles	Education/Carsey-Wolf Center		Dr. Bazerman is interested in the practice and teaching of writing, understood in a socio-historic context. Using socially based theories of genre, activity system, interaction, intertextuality, and cognitive development, he investigates the history of scientific writing, other forms of writing used in advancing technological projects, and the relation of writing to the development of disciplines of knowledge. Some of his studies involve the history and organization of environmental knowledge and communication.	http://education.ucsb.edu/bazerman/
Bergstrom, Ted	Economics	Institute for Energy Efficiency	Dr. Bergstrom's research includes work in resource economics. He has studied and contines to study such areas as using the market to control pollution, the externalities of pollution, and the effect of finite resources on the market.	http://www.econ.ucsb.edu/~tedb/
Bhavnani, Kum Kum	Sociology; Women, Culture, and Development		Dr. Bhavnani's documentary film "Nothing like Chocolate," offers a glimpse into the global chocolate industry, where there are allegations that enslaved children are used to harvest beans in Ivory Coast, which produces 40% of the world's cacao. "Nothing Like Chocolate" focuses on the Grenada Chocolate Company founded by Mott Green, as well as on an independent farmer, Nelice Stewart, who grows organic cocoa beans. Green (deceased June 2013) created a worker-owned cooperative which brings profits back to the working shareholders, who include the farmers and all factory workers at the company. The film discusses how solar power and ethical technology can create a sustainable, community-based business, and, therefore, can undermine global unethical practices.	http://www.soc.ucsb.edu/faculty/kum-kum-bhavnani
Blanchette, Carol	N/A	Marine Science Institute; Santa Cruz Island Reserve	Dr. Blanchette's research focuses mainly on marine ecology. Her main areas of study include an examination of how certain species adapt to ocean acidification as CO2 emissions increase, the ecological responses to climate change, and sustainable fisheries management.	
Boles, Jim	Earth Science		One of Professor Boles' current research projects is studying the effect of rapid carbonate crystallization on isotopic signatures of carbonate. As part of this project, he is investigating the fractionation of stable isotopes between CO2 gas, aqueous CO2 species, and carbonate. This research is relevant to interpreting isotopic signatures from carbonate precipitates associated with CO2 sequestration, as well as leakage and degassing associated with hydrocarbon systems when the isotopic systems of CO2 may be out of equilibrium due to rapid crystallization.	
Bookhagen, Bodo	Geography	Center for Interdisciplinary Research in Fluids	Dr. Bookhagen's research is involved with mass transport on the Earth Surface and includes phenomena such as erosion, landslides, floods, and glaciers. He focuses on identifying spatial and temporal patterns that are often linked to climate changes. For example, heavy rainfall events after intense wildfires can increase erosion and the removal of the fertile soil layer. Dr. Bookhagen uses spatial technology (lidar, satellite data) to map and predict erosion and rainfall. A large component of his work includes measurements and sample collection in the field.	http://geog.ucsb.edu/~bodo/
Bowers, John	Electrical & Computer Engineering	Institute for Energy Efficiency; Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Center for Energy Efficient Materials; California NanoSystems Institute	Dr. Bowers' research team created an LED lamp that is solar-powered, cost-effective, and highly efficient. The circuit of the lamp is designed so as to provide triple the output of a normal AA battery. This design was transferred to a nonprofit, Unite to Light. Manufactured lamps were shipped to Ghana in 2010 at a cost of \$7 per lamp, roughly the amount a family in Ghana would spend on kerosene for 2 months. Unite to Light has sent 80,000 such lights to people in need of a sustainable light source. The research group has since worked on solar powered lights that can also charge cell phones, as well as solar powered cell phone charger lights. (Dr. Bowers' research also includes work on more efficient thermoelectric materials for waste heat recovery and or concentrated photovoltaic devices for more efficient solar power.)	
Brenner, Mary E.	Education		Professor Brenner is currently running an afterschool program at the Goleta Boys and Girls Club in collaboration with Professor Richard Duran. The program teaches Civic Engagement in Environmental issues to children in grades K-8. She was previously involved in running and researching a summer educational program for local students that taught environmental stewardship.	
Brewer, Forrest	Electrical & Computer Engineering	California NanoSystems Institute	Dr. Brewer is currently working on low-power signal processing systems based on 1-bit serial data-flow. These systems allow the construction of micro-power digital signal processing systems for use in e.g. hearing aids or MEMs devices. Ostensibly, they can reduce the power needed used in signal processing by 80-90% and the total power by 35-50% for audio-rate systems. This could lead to substantial reduction of the use of primary batteries in such applications.	http://engineering.ucsb.edu/facult y/profile/91

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Brzezinski, Mark	Ecology Evolution & Marine Biology	Director, Marine Science Institute Center for Interdisciplinary Research in Fluids	Dr. Brzezinski's research focuses on marine phytoplankton, oceanography, and climate change science. He is currently working on projects related to effects of high CO2 conditions on organic matter, the effect of wave energy on kelp forest ecosystems, and the maintenance of species diversity.	
Bullo, Franceso	Mechanical Engineering	Center for Control, Dynamical Systems, and Computation; Institute for Collaborative Biotechnologies	Dr. Bullo has investigated efficient methods to improve the functioning of our power grid. His work involves how to suppress energy-consuming inter-area oscillations and how to integrate increasing percentages of renewable energy into the current grid.	
Buntaine, Mark	Bren School of Environmental Science & Management		Mark Buntaine's research investigates the sources of effective environmental policy in developing countries, with an emphasis on the targeting and impact of foreign aid. Although many of the world's most significant environmental problems occur in developing countries, the implementation of environmental policies is often challenging because of inadequate resources and poor governance.	http://www.bren.ucsb.edu/people/ faculty/mark_buntaine.htm
Buratto, Steven	Chemistry	Institute for Terahertz Science and Technology Institute for Energy Efficiency California NanoSystems Institute	Dr. Buratto has conducted research which looks at the polymer films present in LEDs by using near-field optical spectrscopy and near-field scanning microscopy. Looking at these films provides direct insight into the functioning/performance of these devices. The films affect such factors as carrier generation, transport, and device lifetime. He has additionally researched proton-exchange membrane fuel cells. These fuel cells provide efficient power with a low environmental impact by generating electricity from chemical energy.	
Burbank, Doug	Earth Science	Center for Interdisciplinary Research in Fluids	Professor Burbank studies tectonic geomorphology and surface processes. Working with the Earth Research Institute, Burbank's research areas include earth evolution, earth systems science, and natural hazards. His current research projects include analyzing the climate and tectonic controls on growth of the Puna Plateau in the Andes of NW Argentina, changes in Andean erosion rates over the past 5 million years, and the interactions of tectonics, erosion, and climate in shaping the Himalaya, Pamir, and Tien Shan mountains in Asia.	
Carlson, Craig	Ecology Evolution & Marine Biology	Marine Science Institute, Bermuda Institute of Ocean Science	Dr. Carlson's research focuses on microbial oceanography. More specifically, his research focuses on the role marine microbes play in the cycling of elements through oceanic dissolved organic matter. The applications of this research will help to understand how microbial processes affect the production and consumption of organic matter within the oceanic carbon cycle.	
Carvalho, Leila	Geography	Earth Resource Institute	Dr. Carvalho's research interests are in regional and large-scale climate variability and modeling, global climate change, and scaling processes in geophysics. More specifically, she researches the characteristics of Monsoon Systems and how these characteristics will be modified in future scenarios of climate change. Dr. Carvalho also looks at the pattern of increased precipitation rates in various regions around the world and investigates windstorms in Santa Barbara.	http://www.icess.ucsb.edu/clivac/
Caselle, Jennifer	Marine Science Institute	of coastal oceans	Dr. Caselle's research is broadly focused on marine conservation and reef ecology. She currently works in both coral reef and kelp forest ecosystems, studying community dynamics, recruitment and larval dispersal, and movement patterns of fishes. She also manages a large-scale field-based monitoring program of kelp forests in the California ecosystem with the goal of assessing long-term changes due to climate and anthropogenic impacts.	
Chabinyc, Michael	Engineering/ Institute for Energy Efficiency; Materials	-Member of Production & Storage Solutions Group at the institute for energy efficiency -Member of the Center for Polymers and Organic Solids Mitsubishi Chemical Center for Advanced Materials Center for Energy Efficient Materials Materials Research Laboratory California NanoSystems Institute	Dr. Chabinyc studies energy and conversion. Some of his specific focuses include organic semiconductors and hybrid organic devices that can store energy. He has also researched photovaltaics, which use semiconductors to generate electrical power from solar radiation.	http://www.materials.ucsb.edu/re cruitment/Faculty/chabinyc/chabi nyc.php
Chadwick, Oliver	Geography/Environmental Studies		Dr. Chadwick's research relates soils to ecology and earth system science. He has studied how humans prior to the Industrial Revolution and development of industrial nitrogen fixation managed their natural ecosystems and agricultural systems sustainably. He also looks at how humans impact the environment through extracting nutrients from it for agriculture and industry and then, in some cases, concentrating them or spreading them to return them to the natural environment.	http://geog.ucsb.edu/pedology/

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Cheng, Tim	Electrical & Computer Engineering/ Institute for Energy Efficiency	"-Member of Computing Solutions Group at the Institute for Energy Efficiency -Member of the Greenscale Center for Energy-Efficient Computing"	Dr. Cheng manages two research labs: SoC Design and Test Lab and Learning-based Multimedia Lab. The latter laboratory is currently doing research which focuses on Mobile Computer Vision. Computer vision looks at how real word data, in particular images, are processed into symbols/numbers and understood by computers. The research focuses on developing designs that improve the energy efficiency of tasks involved in computer vision.	
Chmelka, Bradley	Chemical Engineering/ Institute for Energy Efficiency	-Member of Production & Storage Solutions Group at the Institute for Energy Efficiency -Member of the Institute for Collaborative Biotechnologies	Dr. Chmelka works with nanotechnology. He studies, at a molecular level, some of the important materials involved in nanotechnological processes and how these materials are linked to one another. This new technology is used in energy conversion materials such as batteries and fuel cells.	
Church, Richard	Geography		Richard Church specializes in the analysis of problems defined over space and time, including logistics and transportation, location theory, water resource systems, and urban and environmental systems using and developing new techniques in Operations Research, GIS, Decision Theory, and Heuristics. He has published over 180 papers and research reports in a variety of fields, including Geography, Transportation, Location Science, Environmental Engineering, Operations Research, and Water Resources.	geog.ucsb.edu/~forest
Clark, Jordan	Earth Science, Environmental Studies	ERI, MSI	Professor Clark's research focuses on topics in the field of aqueous geochemistry. By analyzing anthropogenic and natural tracers in bodies of water, Professor Clark is able to study how flow patterns affect the quality of water, the transfer of water, and gas exchange across the air-water interface. His current research projects include the chemical evolution of shallow groundwater, groundwater flow near managed aquifer recharge sites, stream/ground water interactions, and groundwater flow in the upper ocean crust on the flank of the Juan de Fuca Ridge. In the past, he has also examined the fate of methane near shallow hydrocarbon seeps.	http://www.geol.ucsb.edu/faculty/j fclark/
Clarke, Keith	Geography	National Center for Geographic Information and Analysis	Dr. Clarke is the author of the SLEUTH land use change model and has overseen a large number of applications and led adaptations and improvements of the model. The model is increasingly used in sustainability planning, in Iran, Turkey, India, Brazil, China, and elsewhere. The model is open source and supported via online discussion forums.	http://geog.ucsb.edu/~kclarke/
Clemencon, Raymond	Global Studies		Dr. Clemencon's policy research has focused on international environmental institutions, sustainable development, and globalization. Currently, he is examining how different countries define and try to operationalize the concept of sustainable development. He examines the political processes that determine the allocation of funds for climate change in different countries (for both multilateral mechanisms like the Green Climate Fund and the GEF, as well as for bilateral efforts). Dr. Clemencon also researches the domestic sources that determine a country's ability to provide leadership in the climate negotiations.	
Coldren, Larry	Energy Efficiency (IEE) and AIM-Photonics (American Institute for Manufacturing)-Photonics	Member of Electronics & Photonics Solutions Group at the Institute for Energy Efficiency; Director of the Optoelectronics Technology Center; Executive Committee Member of the Solid-State Energy & Lighting Center; Member of the Interdisciplinary Center for Wide Bandgap Semiconductors; California NanoSystems Institute	Dr. Coldren has worked to develop new photonic integrated circuit (PIC), as well as vertical-cavity surface-emitting laser (VCSEL) technology. This technology has many applications. It can be used in laser printers and biological tissue analysis, and it is widely used in fiber optics. Fiber optics is a field that focuses on transmitting information by sending light pulses through an optical fiber. As a member of the Electronics and Photonics Solutions Group at the Institute for Energy Efficiency, Dr. Coldren has worked to make these devices high-speed and efficient.	http://www.ece.ucsb.edu/Faculty/ Coldren/
Collins, Peter	Ecology, Evolution, and Marine Biology (EEMB)	Centre for Marine Environmental Research and Innovative Technology (MERIT)	Professor Collins' research emphasis is the study of mechanisms regulating the reproduction and development in vertebrate animal models, comparative reproductive endocrinology and fertility, reproductive physiology in teleosts, endocrine regulation of viviparity, evaluation of candidate species for mariculture, marine teleost larval rearing technology, and the development of novel microparticulate diets for marine larvae.	https://www.eemb.ucsb.edu/peop le/faculty/collins
Cook, Elizabeth	English	Interdisciplinary Humanities Center	Professor Cook's current research explores early modern writing about forests and trees, considering the shifting and sometimes colliding concepts of value and the history of environmental ethics. In her current project, "Talking Trees in Long 18th-Century British Literature," she examines the simultaneous development of silviculture and silviphilia often radically opposed ways of valuing trees that are still with us today during the eighteenth century. Her work argues that this history of contradictory attitudes toward the environment can help us understand how we respond to and address critical environmental issues today.	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Cooper, Scott	Ecology, Evolution & Marine Biology	Research Associate, National Bureau of Economic Research;	Dr. Cooper's research has been centered on the factors that determine the abundances and distributions of aquatic organisms. Past research foci have included the impacts of acid deposition, livestock grazing, pollution, climate change, exotic species, and native species loss on freshwater ecosystems. Currently, much of his work revolves around the effects of land use changes, fire, and forestry practices on streams in California.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/cooper/
Costello, Christopher	Bren School of Environmental Science & Management School	Research Associate, National Bureau of Economic Research	Dr. Costello's research focuses on natural resource management and property rights under uncertainty, with a particular emphasis on information, its value, and its effect on management decisions. He studies how to design and evaluate the performance of markets for environmental goods; specifically, he concentrates on sustainable fisheries and environmental markets.	http://fiesta.Bren School of Environmental Science & Management.ucsb.edu/~costello/
Culver, Carolynn	N/A	Marine Science Institute	Dr. Culver's research interests include understanding the life history characteristics and population dynamics of aquatic organisms and applying this information to improve management of non-native invasive species and fisheries resources and to enhance culture technologies of marine species. She also is evaluating ways to assist the state with management of fisheries resources, through collaborative fisheries research to collect field data and promote its integration into the management process.	
D'Antonio, Carla	Ecology, Evolution & Marine Biology; Environmental Studies	Cheadle Center for Biodiversity and Ecological Restoration; Sedgwick reserve	Dr. D'Antonio's research is primarily focused on factors driving changes in ecosystem structure and functioning. She evaluates how species, communities, and ecosystem processes are responding to human-altered fire regimes, species invasions, nitrogen deposition, and climatic fluctuations, including drought. Through her research, she seeks to provide a scientific basis for the management and restoration of ecosystems and for predicting how species composition will change under current and future stressors.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/dantonio/
Davis, Frank	Bren School of Environmental Science & Management School	Marine Science Institute; Sedgwick Reserve; NCEAS	Dr. Davis brings conservation science and geographical analysis to bear in land use planning and the conservation of wild species. His research focuses on the landscape ecology of California plant communities, the design of protected-area networks, rangeland and farmland conservation, and the biological implications of regional climate change.	http://www.biogeog.ucsb.edu/
Dawson, Daniel	N/A	Marine Science Institute; Valentine Eastern Sierra Reserve	Daniel Dawson has recently completed the design and construction of the first "net zero energy" building in the University of CA. The Page Center, a 2700 sq. ft. classroom/lecture hall was completed May 30, 2016 at the Sierra Nevada Aquatic Research Laboratory located near Mammoth Lakes, CA. The building employs ground source heating and cooling using heat pump technology. The electric load of the system, as well as the domestic electrical load is met by a grid-tie, roof mounted photovoltaic system. Funding was provided by a grant of State Bond Funds (Prop. 84) from the CA Wildlife Conservation Board as well as private funds.	
Den Baars, Steven	Materials	Solid State Lighting and Energy Center Interdisciplinary Center for Wide Band-Gap Semiconductors Center for Energy Efficient Materials	Dr. Den Baars' research interests include growth of wide-bandgap semiconductors and their application to Blue LEDs, lasers, and high power electronic devices. His research is used for the fabrication of new semiconductor devices. This research is important to the development of more energy-efficient lighting. LED Lighting is 9 times more efficien than incandescent bulbs, has the potential to save more than \$40m in energy annual for U.S. billion USD annually for the U.S.	http://www.materials.ucsb.edu/Ll NKS/PROFdenbaars/hp.denbaar s.html
Deschênes, Olivier	Economics	Institute for the Study of Labor;	Dr. Deschênes' research focuses on economic and health impacts of global climate change, adaptation to climate change, and the relationship between energy markets and labor markets. More specifically, his current projects include the impacts of climate change in India and the effect of electricity prices on the labor market. He also is currently studying the role of the diffusion of residential air conditioning in reducing heat-related mortality in the United States.	http://www.econ.ucsb.edu/~olivie
Dickey, Tommy	Geography		Dr. Dickey studies interdisciplinary oceanographic and environmental problems. He has researched air-sea interactions, coastal processes, pollution, and ocean technology, among other things. He recently analyzed ocean eddies in southern California, as well as creating an overview of sea state conditions and air-sea fluxes associated with the Office of Naval Research's Radiance in a Dynamic Ocean (RaDyO) field program. Through his research, Dr. Dickey has helped to launch key multi-platform observational networks to model and monitor global climate change and coastal pollution.	
Donelan, James	English		Dr. Donelan conducts research into pedagogical issues related to sustainability, including remote teaching.	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Dozier, Jeff	Bren School of Environmental Science & Management School		Dr. Dozier's research interests are in the fields of snow hydrology, earth system science, remote sensing, and information systems. His current research projects include analyzing snow-climate interactions and snow runoff. He is researching snowmelt runoff estimates in High Asia, where a billion people depend on snow and ice melt for their water resources.	http://www.Bren School of Environmental Science & Management.ucsb.edu/people/F aculty/jeff_dozier.htm
Dudley, Tom	N/A	Marine Science Institute; Cheadle Center for Biodiversity and Ecological Restoration (CCBER)	Dr. Dudley examines the effects of non-native, invasive species in aquatic and riparian ecosystems, the mechanisms underlying invasion success and plant-herbivore interactions, and the restoration of invaded ecosystems for biodiversity enhancement and improved ecosystem function.	http://rivrlab.msi.ucsb.edu/people pages/dudley.php
Dugan, Jenifer	N/A	Marine Science Institute	Jenifer Dugan's research as a coastal marine ecologist involves studying basic questions concerning the influence of environmental and anthropogenic drivers on community and population dynamics of marine animals across a diversity of shorelines, latitudes, and time scales. She investigates ecological connectivity, marine conservation and restoration, responses to and recovery from disturbance, species interactions, historical ecology, and the physical and biological drivers of community structure and function in coastal ecosystems. Her collaborations with coastal managers to conduct more applied studies have increased our understanding of the ecological impacts and implications of widespread human alterations of the coast, including urban development, shoreline armoring, beach grooming, oil spills, and climate change, and have provided new insights into intertidal recovery dynamics, restoration approaches, and adaptation strategies.	
Dunne, Thomas	Computer Science		Dr. Dunne's research has focused on issues related to natural hazards and resource management. His current research interests include hydrology, sediment transport, and river channel change in lowland floodplains in California and the Amazon basin. Related activities include studies of how physical and biological processes interact to create and maintain habitat for fish and their food sources in the Merced River, CA, and how flow regulation in the San Joaquin River, CA, interacts with natural environmental conditions to affect water temperatures and spawning habitat.	
Eisenhower, Bryan	Mechanical Engineering	Center for Energy Efficient Design (Associate Director)	Dr. Eisenhower's research has two main thrusts: 1) tools for data analysis, aggregation, and visualization of building performance data, and 2) methodologies to enhance design and operations of buildings, using model-based engineering. Buildings generate enormous amounts of data that are rarely studied. By creating algorithms that can precipitate key features of their performance, faulty equipment and suboptimal performance can be identified and addressed. Similarly, by improving models used for building design, optimized design and operational strategies can be identified. Dr. Eisenhower's research is creating new ways to analyze building data and use engineering models leading to high performance building designs.	ne/index.html
El Abbadi, Amr	Art/ Carsey-Wolf Center	-Part of the Energy-Aware Computation Group at the Institute for Energy Efficiency	Dr. El Abbadi is currently interested in addressing the question of how claims about the environmental performance of products can be made and evaluated without requiring disclosure of confidential data. In particular, he has been exploring with Environmental Scientists how to develop techniques to preserve the data privacy of life cycle assessment (LCA), while also enabling validation and meaningful interpretation of results. In general, Dr. El Abbadi's work has helped to optimize database techniques which improve performance while boosting fault-tolerance and preserving data privacy.	http://www.cs.ucsb.edu/~amr/
Elver, Hilal	Global and International Studies	Orfalea Center for Global and International Studies	Hilal Elver is a Research Professor of Global Studies and is co-director of the Project on Global Climate Change, Human Security, and Democracy housed at the Orfalea Center for Global & International Studies at UCSB. Her publications have focused mainly on international environmental law, and international human rights law. Her book, Peaceful Uses of International Rivers: Case of Euphrates and Tigris Rivers, was published in 2002. Currently she is working on a book project dealing with secularism and human rights in the Islamic world.	
Falasca-Zamponi, Simonetta	Sociology; French and Italian	Institute for Energy Efficiency	Dr. Falasca-Zamponi's book "Waste and Consumption: Capitalism, the Environment, and the Life of Things" examines the link between waste and consumption through a cultural approach that integrates environmental concerns with reflections on the role that consumption has come to occupy in our contemporary capitalist societies.	
Florsheim, Joan	Earth Research Institute		Dr. Florsheim's research focuses on sediment dynamics in fluvial systems and emphasizes interactions between geomorphic processes, climate, humans, and ecosystems. Current investigations include a field study to understand long and short-term recovery of chaparral environments in southern California following wildfire and quantification of a sediment budget in a coastal watershed in central California. Recent work focuses on channel incision and bank erosion (northern California), travertine morphology (China), and effects of climate variation and change (Central Valley).	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Foran, John	Sociology		Professor John Foran current areas of interest include the comparative study of 20th-century revolutions and 21st-century radical social change, development, climate, globalization, and the global justice, climate justice movements, "building better worlds," or sustainable development. Foran was UCSB Sustainability Champion in 2013-14 and is engaged in a long-term research project on the global climate justice movement with the International Institute of Climate Action & Theory (IICAT) and the Climate Justice Project.	
Ford, Anabel	Latin American and Iberian Studies	MesoAmerican Research Center; BRASS/EI Pilar Program	Dr. Anabel Ford works with the MesoAmerican Research Center and combines archaeological research with traditional Maya knowledge. Her work involves studying patterns of settlement and environment by examining the common human aspects of the ancient Maya civilization that shed light on sustainable farming practices. Much of Dr. Ford's work takes place at the ancient Maya city center of El Pilar, which she has transformed into a living museum and laboratory. Using the landscape as a tool of conservation, Dr. Ford has turned El Pilar into a model of synergy between nature and culture, and her focus on cultural ecology is being applied to benefit of contemporary populations while simultaneously studying the co-evolution of human societies and the environment.	
Ford, Peter	Chemistry and Biochemistry	Co-principal investigator of the Center for the Sustainable Use of Renewable Feedstocks	Professor Ford's research has encompassed topics related to the photochemistry, catalytic reactions and mechanisms of transition metal complexes. These interests are currently reflected in studies related to (i) quantitative reactions of coordinated nitrogen oxides relevant to mammalian biology, (ii) the photochemical delivery of small molecule bioregulatory molecules to physiological targets and (iii) the conversion of renewable biomass feedstocks to chemicals and fuels using catalysts based on Earth-abundant elements.	http://www.chem.ucsb.edu/fordgr oup
Fredrickson, Glenn	Chemical Engineering	Director of Mitsubishi Chemical Center for Advanced Materials; Complex Fluids Design Consortium; Institute for Collaborative Biotechnologies; Materials Research Laboratory; California NanoSystems Institute;	Dr. Fredrickson conducts research that involves designing specialty block copolymers used to advance lithography strategies to shrink the dimensions of microelectronic devices. He works to make these devices faster and more energy-efficient.	http://www.chemengr.ucsb.edu/p eople/faculty_d.php?id=25
Frew, James	Bren School of Environmental Science & Management	Principle Investigator, Earth Resource Institute	Dr. Frew's research interests lie in the field of environmental informatics, a synthesis of computer, information, and Earth sciences. His current research is focused on geospatial information provenance, remote sensing data products, and environmental information management.	http://eil.bren.ucsb.edu/~frew/
Funk, Chris	Geography	Founding member of the UCSB Climate Hazard Group (CHG)	As a founding member of the UCSB Climate Hazard Group, Dr. Funk's research has focused on drought monitoring, drought prediction, and the evaluation of long-term trends in climate and food security. Recently, Dr. Funk has worked to implement improved methods of monitoring trends and predicting droughts, primarily in Sub-Sarahan African communities. This monitoring and predicting is done by using satellites to track precipitation patterns that can be linked to long-term trends. Dr. Funk's research allows African officials to make sustainable decisions concerning community development and future food security.	http://chg.geog.ucsb.edu/people/ chris-funk/
Gaines, Steve	Bren School of Environmental Science & Management/Ecology Evolution & Marine Biology		Dr. Gaines' research addresses a broad range of issues in ecology, sustainable fisheries, conservation biology, and climate change. More specifically, he focuses on how different populations respond to climate variation, as well as on the design elements that enhance both conservation and fisheries management. Gaines also studies exotic species patterns and biodiversity.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/gaines/index.html
Gardner, Colin	History of Art and Architecture	Adjunct faculty San Deigo State	Dr. Colin Gardner's current research explores the ways in which dissolving the Kantian dialectic structure between man, art, and world in favor of an anti-speciesist structure of assemblage, connectivity, and relationality between aesthetics, creativity, and machinic subjectivity can produce a new vision for a more ethical and ecologically sustainable world. His work brings together issues of accountability, affect, and ecosophy as revolutions through all media, focusing specifically on art, film, installation, and text, thereby opening the human to more ethical relations with the world. He is currently coediting an anthology for Bloomsbury entitled "Ecosophical Aesthetics" which is due in 2017.	
Gauiter, Catherine	Geography	-Principal Investigator of The Institute for Computational Earth System Sciences (ICESS) at UCSB	Dr. Mishra researches electronics and photonics. He recently led a project to develop a new semiconductor technology that enables highly efficient power conversion at low cost in motor drives, electric vehicles, and power grid applications.	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Geyer, Roland	Bren School of Environmental Science & Management		Dr. Geyer's research focuses on industrial ecology. His research interests include the life cycle of manufactured goods and the environmental and economic potential of reuse and recycling activities. His overarching research goal is to help develop the science and knowledge necessary to reduce the environmental impact from industrial production and consumption.	http://www.esm.ucsb.edu/people/ Faculty/roland_geyer.htm
Gibou, Frederic	Mechanical Engineering/ Institute for Energy Efficiency	-Member of Buildings & Design Solutions Group and Computing Solutions Group at the Institute for Energy Efficiency -Member of the Center for Control, Dynamical Systems and Computation, the Center for Energy Efficiency Design and the Greenscale Center for Energy-Efficient Computing	Dr. Gibou's research focuses on the design and applications of high resolution computational methods. These are used in materials science in the study of solidification processes used in the energy sector, as well as in the study of fluid motion applied to flows at the micro and the nanoscale levels. Applications include the study of flows in porous media, including those in oil reservoirs or in porous electrodes of supercapacitors. Dr. Gibou's work has helped develop models enabling the understanding of the charging of supercapacitors.	http://www.engr.ucsb.edu/~fgibou /Home.html
Gilbert, John	Institute for Energy Efficie	Greenscale Center for Energy Efficient Computing	Professor Gilbert works with the Greenscale Center for Energy-Efficient Cooling to develop solutions to the rapidly increasing cost of powering data centers around the world. His research in high-performance computing and engineering is applied to cooling technologies for energy-efficient computational facilities by developing efficient numerical algorithms for computationally modeling airflows on supercomputers.	http://www.cs.ucsb.edu/~gilbert/
Goddard, Jeff	N/A	Marine Science Institute	Jeff Goddard's research is centered on the natural history and systematics of intertidal invertebrates, especially nudibranch sea slugs and their prey. He uses historical data sets of abundance and museum records, combined with new sampling, to examine long-term changes in the fauna of the northeast Pacific Ocean, especially changes in distribution and abundance related to both climate change and the explosive human population growth of southern California in the last half of the 20th century.	
Gordon, Michael	Chemical Engineering	Institute for Collaborative Biotechnologies	Professor Gordon's research focuses on the synthesis and characterization of nanoscale materials, as well as the development of scanning probe microscopy (SPM) methods for optical, electrical, and mechanical interrogation of nanoscale systems found in different venues, such as material science, microelectronics, catalysis, and biology. His work with various materials in nanoscale materials involves spectroscopy of organic semiconductors for organic light emitting diode and photovoltaic applications.	
Gossard, Arthur	Computer Science/ Institute for Energy Efficiency/ Center for Energy Efficient Materials	California NanSystems Intitute (CNSI)	A member of the Center for Energy Efficient Materials (CEEM), Professor Gossard contributes to research on metal/semiconductor nanocomposites that will allow the modification of intrinsic material properties that are important for high efficiency thermoelectrics.	
Goulias, Kostas	Geography		Dr. Goulias' research interests include sustainable and green transportation, as well as human-environment relations. His models and simulations track fuel consumption and pollutants emitted (greenhouse emissions). He has also studied non-motorized transportation, hybrid-electric vehicles, and air pollution control program evaluation.	http://mysite.verizon.net/resocp1k
Graves, Greg	History	Carse-Wolf Center	Dr. Graves' research interests include public history, California history, environmental history, and U.S. history. He specializes in federal water resources development and resource allocation. He also conducts environmental and historical investigations of industrial sites in the partnership Graves & Neushul Historical Consultants. His publications include Pursuing Excellence in Water Planning and Policy Analysis: A History of the U.S. Army Corps of Engineers Institute for Water Resources; From These Beginnings: A Biographical Approach to American History; and "The Rhetoric of Opposition: Anti-conservation and the Early Forest Reserves," in Journal of the West.	http://www.history.ucsb.edu/peop le/person.php?account_id=88
Graves, Greg	Environmental Studies/ History/ Carsey-Wolf Center		Dr. Graves' research interests include public history, California history, environmental history, and U.S. history. He specializes in federal water resources development and resource allocation. He also conducts environmental and historical investigations of industrial sites in the partnership Graves & Neushul Historical Consultants. His publications include Pursuing Excellence in Water Planning and Policy Analysis: A History of the U.S. Army Corps of Engineers Institute for Water Resources; From These Beginnings: A Biographical Approach to American History; and "The Rhetoric of Opposition: Anti-conservation and the Early Forest Reserves," in Journal of the West.	http://www.history.ucsb.edu/peop le/person.php?account_id=88

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Halpern, Benjamin	Bren School of Environmental Science & Management	Marine Science Institute; National Center for Ecological Analysis and Synthesis (NCEAS)	Dr. Ben Halpern focuses his research at the interface between marine ecology and conservation biology. His research has addressed a broad range of questions that span local to global scales, including spatial population dynamics, trophic interactions in community ecology, and the interface between ecology and human dynamics, all with the ultimate aim to inform and facilitate conservation and resource management efforts in marine systems.	http://msi.ucsb.edu/people/faculty/benjamin-halpern
Han, Hahrie	Political Sciences	Center for Social Solutions to Environmental Problems	Dr. Han specializes in the politics of environmental and social policy, focusing particularly on the role that civic associations play in mobilizing participation in politics and policy advocacy. Her recently published book, How Organizations Develop Activists: Civic Associations and Leadership in the 21st Century (Oxford University Press 2014) examines the strategies that the most effective civic associations use to engage activists and develop civic leaders in health and environmental politics.	
Hannah, Lee	Bren School of Environmental Science & Management		As Senior Fellow in Climate Change Biology at Conservation International's (CI) Center for Applied Biodiversity Science, Dr. Hannah examines the role of climate change in conservation planning. His research models climate impacts on species in California and, with the National Botanical Institute in Cape Town, South Africa, models biotic change resulting from global warming in biodiversity hot spots.	http://www.bren.ucsb.edu/people/ faculty/lee_hannah.htm
Harthorn, Barbara	Feminist Studies/Center for Nanotechnology in Society	UC Center for Environmental Implications of Nanotechnology; Principal Investigator and Director of Center for Nanotechnology in Society	Professor Harthorn works with the UCSB Center for Nanotechnology in Society. She leads an interdisciplinary research group which conducts research on nanomaterials and Environmental Risk Perception. Her research broadly examines culture and health, health inequality, and technological risk and perception; in particular she is studying the intersections of socially constructed risk with gender, ethnicity/race, and other categories of difference. Her current work in the CNS-UCSB examines nanotechnological risk perception among both experts and diverse US and comparative UK publics. Her work is published in a variety of social science, medical care, public health, environmental science and technology, technology and society, and nanoscience journals. She is editor (with John Mohr) of The Social Life of Nanotechnology (2012) and (with Laury Oaks) of Risk, Culture, and Health Inequality: Shifting Perceptions of Danger and Blame (2003).	http://www.cns.ucsb.edu/people/barbara-herr-harthorn-0
Hawker, Craig	Chemistry and Biochemistry	Institute for Multi-scale Materials Studies; Institute for Collaborative Biotechnologies; Mitsubishi Chemical Center for Advanced Materials; International Center for Materials Research; Materials Research Laboratory; Center for Nanomedicine; California NanoSystems Institute; Center for Nanotechnology in Society (NSF)	As director of the Material Research Lab at UCSB, Dr. Hawker has overseen research that unlocks the valuable polymers held in plastic food packages so as to use them to benefit society. His lab is working to transform polyactide plastics into specialty chemicals commonly used by industrial and food manufacturers. Dr. Hawker's team hopes to recycle plastics into a material equally as valuable and useful.	http://hawkergroup.mrl.ucsb.edu/
Hayton, Trevor	Chemistry and Biochemistry		Dr. Hayton works with a research group on projects involving the synthesis and characterization of new inorganic and organometallic complexes and materials. In 2010, he was awarded a Sloan Fellowship. Dr. Hayton has plans to use the fellowship to further research into uranium mediated catalysis. This research is a part of his exploration into actinide organometallics that will help improve the nuclear fuel cycle and the treatment of nuclear waste.	http://www.chem.ucsb.edu/peopl e/faculty/hayton/
Herbst, David	N/A	Marine Science Institute	David Herbst's research involves studies of salt lake ecosystems and the ecology and physiology of aquatic invertebrates and algae. In addition, his research extends to spring ecosystems and streams. David Herbst's past projects include studies of sediment deposition and its effects on benthic invertebrates, establishing a monitoring network to detect the effects of climate change on mountain stream hydrobiology, and investigations of the impacts of a variety of disturbance stressors on stream community ecology, including livestock grazing and management, forest use practices, acid mine drainage, introduced invasive species (Trout, New Zealand Mud Snails), roads and erosion, and restoration of degraded habitats. The focus of many of these studies has been to provide a scientific foundation to inform management decisions by state and federal environmental and regulatory agencies.	
Hess, Laura	N/A	Earth Research Institute	Dr. Hess's research focuses on remote sensing, field, and modeling studies in order to quantify key drivers of land cover and land use change on the lower Amazon floodplain and to understand the relationship between land use change and sustainable fisheries.	http://www.eri.ucsb.edu/people/la ura-hess

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Hiltner, Ken	English		Ken Hiltner is a professor of English literature and Environmental Studies. He explores the history of literature and the relationship between literary history and our Earth in order to better understand how we arrived at our current environmental beliefs. Hiltner is active in examining environmental issues from various perspectives. He hosts a weekly podcast, the Environmental Humanities Podcast, where he conducts interviews with scholars and artists to discuss how environmental issues are taken up across the humanities. He also has given various talks, such as "Nature: How Much Does it Matter," "The Role of Our Past In Our Environmental Future," and "Environmental Criticism: What is at Stake?"	http://www.english.ucsb.edu/people-detail.asp?PersonID=266
Hoelle, Jeffrey	Anthropology	EHI	Jeffrey Hoelle has conducted fieldwork in the Brazilian Amazon, studying cattle raising, cattle culture and deforestation, which is the topic of his book Rainforest Cowboys, He is currently working on several projects that build on his interest in understanding how cultural beliefs and practices are related to nature, animals, the environment, and processes of environmental degradation. This research examines "invisible" cultural factors that play an acknowledged yet understudied role in environmental topics and problems and seeks to connect with human dimensions and coupled human-natural systems research and policy. He is currently pursuing four lines of research with this in mind: cross-cultural comparison of cattle economies, cattles cultures, and beef consumption in Brazil, India, and the UC; integrating culture into land use-land change frameworks, theory and modeling; the function and aesthetics of everyday forms of nature control and domination; the anthropology of environmental degredation in the Brazilian Amazon, focusing on cattle raising and gold mining.	
Hofmann, Gretchen	Marine Sciences Institute	Center for the Study of Ocean Acidification and Ocean Change	Dr. Gretchen Hofmann is an eco-physiologist that studies ocean acidification as a result of the absorption of carbon dioxide into the oceans. Hofmann's work investigates whether or not organisms can adapt to ocean acidification. Her work involves studying Antarctic ecosystems which absorb more carbon dioxide due to freezing water temperatures. By studying the response of the Antarctic pteropod, Hofmann hopes to understand how future decreases in the pH of the oceans around the world will affect marine organisms.	http://www.lifesci.ucsb.edu/eemb/ faculty/hofmann/
Holbrook, Sally	Ecology Evolution & Marine Biology	Marine Science Institute; Co-Principal Investigator, Santa Barbara Coastal and Moorea Coral Reef LTER	Dr. Holbrook's research focuses on population dynamics, marine species interactions, and impacts on coral reef ecology. She is currently doing research on temporal patterns in reef communities by analyzing long-term trends in population abundance and species richness. This research is especially vital when looking at the adverse effects of climate change on marine ecosystems.	
Holden, Patricia	Bren School of Environmental Science & Management	Director of UCSB Natural Reserve System	Dr. Holden's research blends environmental engineering with soil microbiology. Her current research projects deal with the interactive effects of soil, water, and nutrients on bacterial processes, as well as coastal water quality in urban environments. She focuses on bacteria as both an agent of environmental restoration and of environmental degradation.	http://www.bren.ucsb.edu/people/ Faculty/patricia_holden.htm
Homyak, Peter	Ecology, Evolution & Marine Biology	Marine Science Institute	Dr. Homyak's research focuses on how humans have altered biogeochemical cycles and its effects on the environment. More specifically, his research examines the production of gaseous N emissions from soils and how they are influenced by dryseason processes. Because N emissions influence the chemistry of the lower atmosphere, he is interested in developing an understanding of important links between soil and atmospheric processes.	https://labs.eemb.ucsb.edu/schimel/josh/Pete.html
Israelachvili, Jacob	Chemical Engineering	Institute for Collaborative Biotechnologies Materials Research Laboratory California NanoSystems Institute	Dr. Israelachvili researches intermolecular and intersurface forces in systems. He has also worked to develop new experimental techniques for studying different materials and surfaces. This research has technological applications, such as the development of biocompatible surfaces, and can also be used to diagnose and treat patients. Recently, Dr. Israelachvili has researched the adhesion potential in the mussel foot protein which helps advance the development of artificial wet adhesives. He has also recently worked to understand the energetics of ionic liquids which could lead to the creation of cleaner, more sustainable batteries and energy storage devices.	
Jebnratt, Lisa	Art/ Carsey-Wolf Center		Lisa Jevbratt is a professor in the art department and an artist who has focused her research and art on investigating human/animal relationships for several years. She is developing software that simulates how animals see, and she is teaches a yearly class in interspecies collaboration in the art department. Her work and teaching is continuously engaged with questions about sustainability though examining the relationships we create with other species and our shared environment.	http://artsite.arts.ucsb.edu/people /faculty/jevbratt.html

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Jones, Charles	Electrical and Computing Engineering		Dr. Charles Jones co-heads the Climate Variations and Change research group. His work is dedicated to achieving a better understanding of the Earth's present and future climates on different temporal and spatial scales. His research interests are in Dynamic Meteorology and Climate Sciences, and his research topics include the Madden-Julian Oscillation (MJO), predictability of extreme events (especially precipitation), monsoon systems, climate change, WRF regional modeling, and wildfires.	http://www.eri.ucsb.edu/people/c haries-jones
Jones, Matthew	Geography		Matthew Jones' research focuses on environmental informatics, including the management, integration, analysis, and modeling of heterogeneous environmental data. Recent projects have produced effective new techniques for information management and analysis, including metadata standards, data management software, and data analysis software, such as scientific workflow systems. Recent projects focus on Kepler, an open-source scientific workflow system that Jones co-founded with other researchers; DataONE, a global data repository aimed to promote access to data about life on earth and the environment; and SONet, an effort to achieve environmental data interoperability through semantic modeling of scientific observations.	
Kappel, Carrie	N/A	National Center for Ecological Analysis and Synthesis (NCEAS); Center for Marine Assessment and Planning	Carrie Kappel is a conservation biologist and community ecologist. Major themes of her work include quantifying the ways humans depend upon and impact marine species, habitats, and ecosystems; understanding the spatial distribution of ecological and human components of ecosystems in order to inform conservation and management; and developing ways to integrate biophysical and socioeconomic data to support environmental decision making in coastal ecosystems. Her research has been aimed at informing marine protected area design, ecosystem based management, and marine spatial planning.	
Keller, Arturo		American Chemical Society; American Geophysical Union; Association of Environmental Engineering and Science Professors; Society for Environmental Toxicology and Chemistry	Dr. Keller's research focuses on the sustainable use of chemicals and materials in our modern society by understanding and quantifying their potential impacts and by seeking ways to minimize impacts while achieving the benefits. He is particularly interested in emerging materials such as nanoparticles and biochemicals, for which little information is available. He also does work at large scales to design better management strategies for common chemicals such as fertilizers and pesticides.	http://www.bren.ucsb.edu/~keller
Keller, Edward	Earth Science	Geological Society of America;	Dr. Keller's research is divided into the study of stream processes and tectonic activities. More specifically, he focuses on river restoration management, environmental effects of channelization, and the impact of large debris on river systems. Dr. Keller recently started a long-term research project that looks at the hydrology and ecology of small coastal lagoons in southern California.	
Kendall, Bruce	Bren School of Environmental Science & Management	Marine Science Institute; Earth Science Institute	Dr. Kendall applies the science of population ecology to the conservation of rare species and to the management of harvested populations. His research focuses on the causes of population fluctuation, the prediction of the extinction of rare species, and the effects of current-driven dispersal on marine fish species. He also studies the design of protected areas for biodiversity conservation and fisheries management and how to manage tradeoffs among multiple ecosystem services.	
King, Jennifer	Geography	EARTH RESEARCH INSTITUTE (ERI)	Dr. King studies the interactions between soils, plants, and the atmosphere. Her research focuses on biogeochemical processes, which are those processes that cycle elements on Earth, and examines how these processes are influenced by natural and human-induced environmental changes. She recently investigated biogeochemical cycling of carbon, nitrogen, and phosphorus in urban households and how human decisions impact the fluxes of these elements. Current projects include examination of biotic and abiotic factors affecting the carbon cycle in California grasslands.	http://geog.ucsb.edu/~jyking/
Kolstad, Charles	Bren School of Environmental Science & Management		Dr. Kolstad's research interests are in information, uncertainty and regulation, with much of his applied work in the area of climate change and energy markets. His policy-related focus within these fields is climate change and energy markets. He has been a Convening Lead Author for the Intergovernmental Panel on Climate Change (corecipient of the 2007 Nobel Peace Prize), is a founding Co-Editor of the OUP journal Review of Environmental Economics & Policy and serves as an advisor to the State of California on their greenhouse gas cap and trade program.	http://www.bren.ucsb.edu/people/ faculty/charles_kolstad.htm

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Krintz, Chandra	Electrical & Computer Engineering/; Computer Science	RACELab	Professor Chandra Krintz's research interests include programming support and adaptive optimization for cloud computing applications and systems, and techniques for efficient interoperation and integration of web services. Most recently, her focus has been on using these technologies to faciliate sustainability science and engineering for the domains of agriculture (SmartFarm) and Diabetes management (Vigilance). The project SmartFarm couples data from external sources with farm-local measurements and statistics, provides an interface into which custom analytics tools can be plugged and automatically deployed, and ensures that all data and analyses remain securely under the control of growers (not commercial vendors). SmartFarm enables growers to extract actionable insights from their data, to quantify the impact of their decisions and environmental changes, and to identify opportunities for increasing farming sustainability as well as productivity.	http://www.cs.ucsb.edu/~ckrintz/
Kryder, LeeAnne	Environmental Studies	Writing Program	Professor Kryder's research involves sharing and refining the pedagogy of developing awareness and proposing remedies for environmental problems—and how written communication can be of great use in this endeavor. Her students regularly study and conduct research in order to learn about environmental issues and concerns and work in teams to write proposed solutions for these issues or methods to expand awareness of problems and practices that could address the problems.	
Kuczenski, Brandon	Bren School of Environmental Science & Management	Institute for Energy Efficiency; Institute for Social, Behavioral and Economic Research	Dr. Kuczenski's research in industrial ecology concerns how researchers, firms, and policy makers assess the environmental impacts of products and consumption decisions and how they share that information with stakeholders and with the public. His research focuses on Life Cycle Assessment, including the use of modern Webbased technologies for sharing life cycle inventory information, and techniques for protecting the privacy of confidential information during publication. He also studies the environmental implications of waste management, recycling, and extended producer responsibility.	http://iee.ucsb.edu/faculty/kuczen ski
Kuris, Armand	Ecology Evolution & Marine Biology, Biology (College of Creative Studies)	Marine Science Institute	Dr. Kuris' research goal is to reveal the role of infectious diseases in ecosystems. It examines how disease contributes substantially to the energetics of the ecosystem and substantially alters trophic relationships and the structure of food webs. His research looks at the biological control of exotic marine pests and biological control of human tropical diseases. This information about parasites is useful for assessing ecosystem function in wetlands.	
Lafferty, Kevin	Ecology, Evolution, and Marine Biology (EEMB)	MSI; USGS	Dr. Lafferty's research mainly focuses on the ecology of parasites; however, his work also deals with conservation biology issues. Such research includes ways to further the protection and recovery of the endangered tidewater goby, black abalone, southern sea otter, and western snowy plover. In addition, Dr. Lafferty studies the effect of fishing on marine ecosystems (local estuaries, beaches, and kelp forests). In addition to being an adjunct faculty member at UCSB, he is also a Marine Ecologist for the USGS at the Channel Islands Field Station.	http://homes.msi.ucsb.edu/~laffer ty/Kevin_Lafferty/About%20Me.ht ml
Lavallee, Daniel	N/A	Earth Research Institute (ERI)	Daniel Lavalee's research has been focused on the study of nonlinear effects in seismology: first in the study of nonlinear soil dynamics and earthquake strong ground motion and second in the study of spatial complexity of earthquake slip or pre-stress distribution over the fault surface. A better understanding of earthquakes and tsunamis will help mitigating damage to the environment. A recent example is the situation in Japan after the 2011 Tohoku earthquake, especially regarding nuclear accidents.	http://www.eri.ucsb.edu/people/daniel-lavall%C3%A9e
Lea, David	Earth Science	Marine Science Institute	Professor Lea's research with the UCSB Earth Science Department and Marine Science Institute involves the study of climate change, paleoclimatology and paleoceanography, and the global carbon cycle. His research focus involves the study of past climate change in order to establish a context for future global warming.	
Lenihan, Hunter	Bren School of Environmental Science & Management School	Sustainable Aquaculture Research Center Moorea Coral Reef LTER Santa Barbara Coastal LTER	Dr. Lenihan's primary research interests lie in population and community ecology, especially in connection with coral reefs, estuaries, marine fisheries management, habitat restoration, aquaculture, and ecotoxicology. He is working on projects that aim to enhance coral reef management and restoration, sustainable aquaculture, mitigating environmental harm caused by emerging chemicals, and managing coastal marine fisheries, for example those targeting sharks and invertebrates.	http://fiesta.bren.ucsb.edu/~lenih an/

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Lester, Sarah	Bren School of Environmental Science & Management/ Carsey-Wolf Institute	Marine Science Institute/ Sustainable Fisheries Group	Sarah Lester has been the Research and Program Manager of the Sustainable Fisheries Group at UCSB for the last three years. She also helps SFG with science communications and works with on-the-ground partners to connect science and research with the implementation of conservation and sustainable fisheries projects. Her recent research has focused on the ecological effects of marine protected areas, applying tradeoff analysis to marine resource management and spatial planning, sustainable fisheries management, and ecosystem-based management. She has also worked recently as scientific staff for the Ocean Health Index project, which aims to establish a new world standard for measuring ocean health and to improve ocean governance and health.	
Levi, Carlos	Materials	International Center for Materials Research; Materials Research Laboratory; Institute for Energy Efficiency; Pratt & Whitney Center of Excellence for High Temperature Composites; leads the Honeywell- UCSB Alliance for Thermal Barrier Coatings	The overarching theme of Professor Levi's research is the fundamental understanding of microstructure evolution in inorganic materials during synthesis and subsequent service, and the application of this understanding to the design and synthesis of improved coatings, thin films, composites and monolithic systems, with emphasis on materials for more efficient energy and propulsion systems. Current areas of work include thermal and environmental barrier coatings for advanced gas turbine components with higher fuel efficiency and reduced environmental impact, fibers and environmentally robust matrices for ceramic matrix composites, novel high temperature alloys and multi-phase functional materials, all related to energy production systems.	
Lewallen, Anne Elise	East Asian and Cultural Studies		Ann-Elise Lewallen's research and teaching engages with critical indigenous studies, gender studies, multiculturalism, and environmental justice in the context of contemporary Japan and in Japan's transnational relations. As a cultural anthropologist, she is also concerned with research ethics and issues of knowledge construction in relation to indigenous and research host communities. Her current book project examines models of sustainable development and environmental justice within transnational citizen relations between Japan and India.	http://www.eastasian.ucsb.edu/home/faculty/ann-elise-lewallen/
Libecap, Gary	Economics, Bren School of Environmental Science & Management	Institute for Energy Efficiency	Dr. Libecap's research interests include common pool resource problems and how property rights institutions (private, group) can or cannot address them. Current research addresses the demarcation of land, water rights, and water markets for water allocation and management, as well as the use of rights-based arrangements in fisheries.	
Lipshutz, Bruce	Chemistry and Biochemistry	Institute for Terahertz Science and Technology	The Lipshutz Research Group at UCSB is committed to developing new green technologies that will transform the way in which organic synthesis will be performed. Their patent-pending technologies provide alternatives to the use of toxic and flammable organic solvents that constitute the vast majority of the organic waste created by the chemical enterprise today. Through the use of newly engineered "designer" surfactants, which are environmentally benign, many of the most commonly used organic reactions can now be run in water at room temperature.	http://www.chem.ucsb.edu/peopl e/faculty/lipshutz/index.shtml
Lisiecki, Lorraine	Earth Science	Marine Science Institute	Professor Lisiecki's research focuses on computational approaches to analyzing paleoclimate records. Through the analysis of climate system interactions such as glacial cycles, Professor Lisiecki's work contributes to models that further understanding of how man-made changes may affect future climate cycles.	http://lorraine-lisiecki.com/
Loaiciga, Hugo	Geography; Environmental Studies		Professor Loaiciga's research focuses on planning, designing, and analyzing water resource systems, as well as on the computational aspects of surface and groundwater hydrology. He is currently looking at groundwater and earthquake hazards, as well as sea level rise and its effect on coastal freshwater aquifers. He is also working on the development of sustainable water and energy use through seawater desalination with solar energy.	http://geog.ucsb.edu/~hugo/
Lopez-Carr, David	Geography; Latin American and Iberian Studies	Marine Science Institute	Dr. Lopez-Carr's research interests include land use, deforestation, rural poverty, and health. He recently conducted a project to try to understand what was causing rapid land change and urban transition in Ghana. Dr. Lopez-Carr analyzed population and health surveys conducted in the region as part of the project. He has additionally researched agricultural intensification in Guatemala and implications for food security in Latin America.	http://geog.ucsb.edu/~carr/
Luyendyk, Bruce		Earth Research Institute; Coastal Research Center	Dr. Luyendyk has studied the marine seep systems offshore of the UCSB campus. Other research interests include Antarctic climate evolution in which he participated in projects that aim to capture a record of some of the earth's global climate transitions.	http://www.geol.ucsb.edu/faculty/luyendyk

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
MacIntyre, Sally	Ecology, Evolution & Marine Biology	MSI, ERI, EEMB, and Bren	Dr. MacIntyre's research focuses primarily on the physical processes in lakes and coastal zones and their biogeochemical and ecological consequences. She is developing new models of the gas transfer coefficient as needed for accurate estimates of regional and global carbon fluxes. Her studies are ongoing in Arctic and Subarctic lakes; Mono Lake, CA; tropical lakes in East Africa and the Amazon Basin; and the waters of coastal California.	http://www.crseo.ucsb.edu/~sally/
Mackie, Diane	Psychological & Brain Sciences; Communication		Professor Mackie's research spans two distinctly different domains: intergroup relations (focusing on the affective, cognitive, and motivational processes by which group memberships influence people's thoughts, feelings, and behavior) and social influence (focusing on the affective, cognitive, and motivational processes by which peoples' attitudes and behavior are changed). Her study of the antecedents and consequences of attitudes and norms can be applied to sustainability relevant behaviors.	
Madhow, Upamanyu	Electrical & Computer Engineering	Member of the Center for Energy Efficiency Design at IEE; Institute for Collaborative Biotechnologies	Dr. Madhow's ongoing research investigates the architecture of next generation wireless communication and sensor networks, with the goal of obtaining order of magnitude gains in energy efficiency.	http://www.ece.ucsb.edu/Faculty/ Madhow/
Manalis, Melvyn	Environmental Studies	Economics and Policy Solutions Group	Professor Manalis's research interests surround the development of quantifiable sustainability measures, as well as integrated energy planning, industrial ecology, and green nuclear energy. He is also a member of the Economics and Policy Solutions Group that strives to understand the environmental and economic impact of energy efficiency advancements and investigate the range of ways that research, economics, and the environment interact to find policy solutions that proactively shape the market for the benefit of society.	
Matthys, Eric	Mechanical Engineering	Member of Production & Storage Solutions Group, Buildings & Design Solutions Group and Computing Solutions Group at Institute for Energy Efficiency	Dr. Matthys conducts Sustainability research, mostly in the Energy area. He is leading efforts in Solar Energy, especially on new Concentrated Solar Thermal approaches, as well as in Energy Efficiency projects, such as developing new technologies for HVAC systems for buildings and for ship propulsion .	http://www.me.ucsb.edu/~matthy
Mazer, Susan	Ecology, Evolution & Marine Biology	Member, Advisory Committee, National Phenology Network; Field Director, California Phenology Project	Dr. Mazer's research involves detecting the mechanisms by which plants adapt to the ecological risks and opportunities that they encounter and exploring the genetic constraints that may limit the rate or degree of adaptation. Her central research goals are to determine genetic and environmental sources of variation in traits that affect individual fitness. Since 2011, as field director of the California Phenology Project (www.usanpn.org/cpp), she has designed and implemented phenological monitoring programs throughout the state, engaging students, national park staff, UC Natural Reserves, and citizen scientists in the study of how climate change is affecting the seasonal cycles of 30 California native plant species.	http://www.eemb.ucsb.edu/peopl e/faculty/mazer
McClintock, Will	Marine Sciences Institute	СМАР	Dr. McClintock has developed the "next-generation" MarineMap, called SeaSketch (www.seasketch.org). Designed in a way that anyone - regardless of their technical or scientific background - can participate in marine spatial planning, SeaSketch brings the power of collaborative, spatial decision support systems to everyone with a web browser and internet connection. The McClintock lab was also involved from 2004-2011 in the development of MarineMap, a web-based application used by stakeholders in California's Marine Life Protection Act (LMPA) Initiative for marine protected area planning.	
McFadden, Joe	Geography	Earth Research Institute	Professor McFadden studies how changes in land cover and land use modify flows of water, energy, and carbon between ecosystems and the atmosphere. His current work is focused on measuring and modeling these processes in cities and suburbs, with the aim of using that knowledge to inform urban design and planning.	http://www.geog.ucsb.edu/people /faculty/joe-mcfadden.html
McFarland, Eric	Chemical Engineering	Institute for Energy Efficiency Materials Research Laboratory California NanoSystems Institute	Professor McFarland's research focuses on facilitating cost-effective and environmentally sustainable production of chemicals and fuels. He helps to investigate new conversion processes and issues related to technoeconomics and sustainability.	https://chemengr.ucsb.edu/peopl e/eric-mcfarland
McMeeking, Robert	Material; Mechanical Engineering	Institute for Energy Efficiency; Center for Multifunctional Materials & Structures (CeMMaS); California NanoSystems Institute	Dr. McMeeking undertakes research on lithium-ion batteries and solid oxide fuel cells with the aim of improving their energy capacity, increasing their ability to deliver high power, and, in the case of batteries, enabling them to be recharged rapidly. Both lithium-ion batteries and solid oxide fuel cells are important elements in the strategy to reduce carbon emissions, as energy generated by low carbon emission methods can be stored and transported in the batteries, and solid oxide fuel cells can use hydrogen as the fuel, thereby avoiding the production of carbon dioxide. McMeeking uses computational modeling of both system to identify improved microstructures and designs.	http://engineering.ucsb.edu/facult y/profile/204

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Meiburg, Eckart	Mechanical Engineering	Center for Interdisciplinary Research in Fluids	Dr. Eckart Meiburg investigates fluid flow problems in the atmosphere and the oceans, by means of large-scale computer simulations. In recent years, he has studied such problems as mixing of warm and cold water in the ocean, as well as the transport of sediment and biogenic particulate matter by oceanic currents. Understanding these processes is important for predicting the oceans' ability to absorb atmospheric carbon dioxide, which, in turn, represents a critical element in all climate models. Dr. Meiburg's research finds additional application in the development of energy-efficient heating and cooling strategies for buildings.	http://me.ucsb.edu/faculty/profile/ 205
Meinhart, Carl	Mechanical Engineering	Institute for Collaborative Biotechnologies AIM Photonics Center	Professor Meinhart's research group investigates fundamental fluid mechanics problems at the micro-scale and nano-scale, with special emphasis on transport issues in MEMS-based sensors for detection of specific biological molecules. His research allows the detection of highly sensitive and specific detection of trace chemicals through the combination of surface-enhanced Raman Spectroscopy with microfluidics.	
Melack, John	Ecology, Evolution & Marine Biology	Marine Science Institute, Earth Research Institute	Dr. Melack researches ecological processes in lakes, wetlands, and streams, as well as the hydrological and biogeochemical aspects of catchments. His research combines state-of-the-art measurements, modeling, experiments, and remote sensing, and it examines ecological processes from the population to ecosystem levels. He has applied results of his research to assess impacts of atmospheric deposition on aquatic ecosystems, to evaluate ecological restoration efforts in California's Bay-Delta and in Mono Lake, and to determine greenhouse gas emissions from tropical reservoirs.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/melack/index.html
Meng, Kyle	Bren School of Environmental Science & Management, Economics		Dr. Meng explores particular empirical settings selected to inform upon a world under anthropogenic climate change. Examples include examining the relationship between adverse local weather driven by the El Ninō Southern Oscillation and the onset of civil wars in the tropics during recent decades; using betting markets to elicit beliefs over the cost of U.S. climate policy; and studying the development of 20th-century U.S. coal-fired electricity capacity to inform upon a future low-carbon energy transition.	http://www.kylemeng.com/
Metiu, Horia	Chemistry/ Institute for Energy Efficiency	Institute for Terahertz Science and Technology; California NanoSystems Institute	Dr. Metiu's research involves searching for new catalysts in order to convert CO2 and natural gas into useful chemicals. He is also involved with work that uses electrochemistry to find a good system for energy storage.	http://www.chem.ucsb.edu/p eople/faculty/metiu/
Mezic, Igor	Mechanical Engineering/ Institute for Energy Efficiency	California NanoSystems Institute	Dr. Mezic's current research is centered on an operator-theoretic approach to analysis of nonlinear dynamical systems, applications in microfluidics and (bio)-nanotechnology. The research topics can be grouped as follows: 1) mixing and separation in fluids across the scales with applications ranging from microfluidic phenomena to oceanographic flows; 2) nano and micro-scale particle dynamics induced by dielectrophoresis and other electrokinetic phenomena, with applications to biotechnology; 3) multiscale dynamics of the Atomic Force Microscope, including interactions with biomolecules; and 4) dynamical systems theory of complex systems, including large-scale networked systems. In each of these topics, the research is characterized by pursuit of the key physical phenomena in a device or system, followed by the abstraction of the mathematical problem (or problems) associated with it. The loop is closed by applying the solution of the mathematical problem to explain the physical phenomena or design new concepts based on which devices can be built or improved.	http://industry.ucsb.edu/faculty/pr ofile/175
Mia Charlene White	Black Studies		Professor White's research involves researching the intersection of "the city" as a domain and as a generative site for justice in social, economic, ecological, and environmental realms. She is interested in "alternative", sustainable and economic development schemes, such as community land trusts, Coops and other "Nontraditional" methodologies for dealing with historical problems of "otherness" colliding with issues in urban and market restructuring.	
Michaelsen, Joel	Geography	Climate Hazards Group (CHG)	Dr. Michaelsen's research focuses on analyzing climate variability and climate change using statistical modeling techniques. Along with the members of the Climate Hazards Group (CHG), he has worked on implementing improved methods of monitoring and predicting rainfall variations in Sub-Saharan Africa and Central America on seasonal and longer time scales. This monitoring and prediction is done by blending data from satellites, weather stations, and models. The primary objectives of the research are to: 1) provide African officials and relief agencies with early warning of developing drought conditions on seasonal time scales that could increase food insecurity; and 2) determine relationships between rainfall and larger atmospheric circulation and ocean temperature patterns that may help officials adapt rainfed agricultural systems to longer term changes in rainfall regimes associated with global warming.	http://geog.ucsb.edu/~joel/

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Michelle O'Malley	Materials/Mechanical Engineering	Institute for Collaborative Biotechnologies California NanoSystems Institute; Department of Chemical Engineering; Center for Bioengineering	Dr. O'Malley directs a group that is working to develop renewable chemicals and biofuels from lignocellulose (plant waste).	
Mildenberger, Matto	Political Sciences		Dr. Mildenberger's research explores the political drivers of policy inaction in the face of serious social and economic threats posed by global climate change. Straddling comparative political economy and political behavior, Mildenberger's work focusses on comparative climate policymaking and the dynamics of US climate opinion. His current book project compares the politics of carbon pricing across advanced economies, with a focus on the history of climate reforms in Australia, Norway and the United States.	
Miller, Robert	Bren School of Environmental Science & Management	Marine Science Institute	Robert Miller's research involves benthic subtidal ecology, particularly community ecology and the role of primary producers in marine ecosystems. He is also currently involved in in the UC Center for Environmental Implications of Nanomaterials (CEIN). He is measuring impacts of nanomaterials as emerging contaminants to marine ecosystems, using phytoplankton and suspension feeders as model organisms.	
Mishra, Umesh	Electrical and Computing Engineering	Institute for Energy Efficiency Center for Advanced Nitride Electronics Researchers Solid State Lighting and Energy Center Interdisciplinary Center for Wide Band-Gap Semiconductors California NanoSystems Institute	Dr. Mishra researches electronics and photonics. He recently led a project to develop a new semiconductor technology that enables highly efficient power conversion at low cost in motor drives, electric vehicles, and power grid applications.	
Moehlis, Jeffrey	Mechanical Engineering/ Institute for Energy Efficiency	Institute for Collaborative Biotechnologies	Dr. Moehlis has an ongoing research project on energy harvesting, which involves converting vibrational energy into electrical energy. His other research areas include biological dynamics, control of neurons, networks, and dynamical systems.	http://www.me.ucsb.edu/~moehlis/
Morse, Daniel	Molecular, Cellular, and Developmental Biology	Institute for Collaborative Biotechnologies; Center for Nanomedicine; California NanoSystems Institute	Professor Morse and his group conduct research focused on biophotonics and biologically inspired photonic technologies to improve the efficiency of solar energy, llight-emiting diodes and infrared detectors. Previously recognized for their innovation of "Silicon Biotechnology," the team's approach is focused on advantageous mechanisms they are discovering in biological systems and translating into practical new materials and engineering.	http://www.mcdb.ucsb.edu/peopl e/faculty/morse
Moskovits, Martin	Chemistry and Biochemistry	Center for Energy Efficiency	Professor Moskovits' research interests falls into two broad categories: (i) plasmonics and surface-enhanced Raman spectroscopy (SERS) and (ii) nanowire synthesis and nanowire-based sensing. In plasmonics, he has two major goals: the first is to create plasmonic analogs of photovoltaics and photosynthetic systems. Recently, his research group produced the first device ever reported which uses the electrons resulting from the decay of plasmons in gold nanorods to reduce hydrogen ions in water and uses the positive charges left behind to oxidize water to oxygen gas. The device is a free running cell floating in water, with light as its sole energy source.	
Mulfinger, Jane	Art		Jane Mulfinger's art project at the Pasadena YWCA building exemplifies how art and sustainability go hand in hand. Mulfinger's installation, "Autonomy Is No Longer Possible or Interesting," features repurposed excercise bicycles that power LED lights in the buildings when used by visitors. By repurposing materials for her artwork, Mulfinger uses sustainable methods to create metaphors that enhance cultural/community awareness.	http://www.arts.ucsb.edu/faculty/ mulfinger/
Myers, Monique	Communication	Marine Science Institute	Dr. Myers research interests include impacts to, benefits from, and conservation of coastal ecosystems. She has explored anthropogenic contaminants in coastal wetlands, remote sensing and community monitoring of coral reefs and impacts of marine protected areas. She is currently investigating ghost crabs as indicators of human impacts to sandy beaches and leading the Santa Barbara Area Coastal Ecosystem Vulnerability Assessment (SBA CEVA). To address the challenges climate change poses to coastal communities and ecosystems, Myers' work is aimed at providing tools and information to reduce impacts to our coasts and help plan for adaptation to inevitable changes. During the past four years, Myers has been working on sustainable coastal community topics, K-12 student/teacher watershed education and climate change outreach. To accomplish a diverse array of projects, Myers collaborates with a variety of government, nonprofit groups, university researchers, and other stakeholders. She also participates on advisory boards and committees and produces publications for her peers and the public.	http://ca- sgep.ucsd.edu/biographies/moni que-myers

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Nakamura, Shuji	Materials	Solid State Lighting and Energy Center (SSLEEC)	Dr. Nakamura's research interests include high efficiency, high power light emitting diodes (LEDs) for lighting. His discovery of p-type doping in Gallium Nitride (GaN), growth of first Indium Gallium Nitride (InGaN) and development of blue, green, and white LEDs and blue laser diodes (LDs) has enabled energy efficient lighting and displays.	http://www.materials.ucsb.edu/re cruitment/Faculty/nakamura/naka mura.php
Nguyen, Thuc-Quyen	Chemistry and Biochemistry	Center for Polymers and Organic Solids; Institute for Collaborative Biotechnologies; Institute for Terahertz Science and Technology; Mitsubishi Chemical Center for Advanced Materials; Center for Energy Efficient Materials; California NanoSystems Institute	Prof. Nguyen studies new materials for organic solar cell applications with an emphasis on nanoscale characterization and structure-property-performance relationships. Organic solar cells have the potential to be a low cost, light-weight, and clean energy technology because they can be made from abundant materials and manufactured at room temperature from solution. Dr. Nguyen's lab aims to develop higher-efficiency and more stable organic solar cell devices.	e/faculty/nguyen/
Nicholson, Craig	Earth Sciences	Marine Science Institute	Craig Nelson's research includes projects studying the microbiomes of humans and other animals and studying bacterial pathogens in natural water in the context of water quality.	
Nisbet, Roger	Ecology, Evolution & Marine Biology	Marine Science Institute; University of California Center for Environmental Implications of Nanotechnology	Dr. Nisbet's research covers many areas of theoretical ecology. Much of his work is based on Dynamic Energy Budget (DEB) theory to describe the rates at which individual organisms assimilate and utilize energy. His research group develops new fundamental theory and applies it to environmental problems. Applications include ecotoxicology, coral biology, zooplankton ecology, and fish bioenergetics.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/nisbet/index.html
Odette, George	Materials; Chemical Engineering	Center for Multifunctional Materials & Structures (CeMMaS)	Dr. Odette's research interests focus on developing materials for future fusion and fission energy systems that will improve safety and reduce waste issues. He also looks at materials issues related to the safety of the current fleet of light water nuclear reactors.	http://me.ucsb.edu/faculty/profile/ 168
Oliva, Paulina	Economics	Center for Effective Global Action	Dr. Oliva's research blends environmental economics with labor and development economics. Her research has focused on the effects of air pollution on infant mortality in Mexico City, as well as the effects of pollution on labor supply. She is currently researching environmental regulations with regards to automobile emissions in Mexico City.	http://www.econ.ucsb.edu/~oliva/
Osherenko, Gail	Marine Science Institute		Osherenko's research focuses on coastal and ocean law and policy, including property rights and sea tenure, the public trust doctrine, marine spatial planning, and the California coastal management regime. She was a principal investigator in the NCEAS working group on Ocean Ecosystem-Based Management: the role of zoning. She has published extensively on co-management of natural resources and indigenous peoples in Siberia, the Northern Sea Route, Canada, and Alaska. She is currently exploring the use of film and media in environmental education and has had two films in the Santa Barbara International Film Festival, including "Dark Side of the Loon" (www.darksideoftheloon.com) and "Arctic Expedition" (www.FilmsfromtheNorth.com).	
Passow, Uta	N/A	Marine Science Institute	Dr. Passow's research seeks to answer the question of "How does the response of organisms and ecosystems change the functioning of the biological pump in a changing world?" Her research tries to achieve a mechanistic understanding of organisms and processes which determine sedimentation rates in marine systems, now and in the future. Currently, Passow specifically investigates how the input of fossil carbon impacts the growth of autotrophic and heterotrophic microbes, aggregation rates, and the production and microbial degradation of organic carbon. Her research also explores the effects of ocean acidification on microbial degradation and on aggregation and the drivers of the large fluctuations in normal pH off coastal California.	
Patrick Roehrdanz	Bren School of Environmental Science & Management	Earth Research Institute	Roehrdanz's research focuses on the global analysis of climate change impacts on wine production and conservation. More specifically, his research examines how climate change will impact the areas where wine grapes can be grown in the future. And as viticulture moves to cooler areas –by going north or to higher altitudes—it could intrude on habitat favored by caribou, grizzly bears and other mountain species and have far-reaching implications for conservation. This research is a good test case for measuring the impacts of climate change refracted through agriculture.	
Peljhan, Marko	Art/ Carsey-Wolf Center		Professor Peljhan's research focuses on art and technology. His recent projects involve the Makrolab, a project that focuses on telecommunications, migrations, and weather systems research in an intersection of art and science from 1997-2007, and he is currently coordinating the Arctic Perspective Initiative art/science/tactical media project which is focused on the global significance of the Arctic geopolitical, natural, and cultural spheres .	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Peterson, Seth	Geography		Dr. Seth Peterson is currently doing research on the effect of and response to the deepwater horizon oil spill in the marshes of Louisiana.	
Plantinga, Andrew	Bren School of Environmental Science & Management		Andrew Plantinga's research focuses on the economics of land use, climate change, and forests. Particular emphasis is given to the development of methods for econometrically modeling land-use decisions, the analysis of environmental policies that affect private land-use decisions, and the modeling of land development pressures. A current project, funded by the National Science Foundation, involves the development of econometric land-use models to support an integrated analysis of climate change and water scarcity in the Willamette Basin of Oregon. Additional work examines how urban growth controls affect property values and urbanization rates.	
Plaxco, Kevin W.	Chemistry and Biochemistry	Institute for Collaborative Biotechnologies; Center for Bioengineering	Professor Plaxco's research primarily involves the study of biomolecular recognition. In recent years, researchers have developed folding-based sensors that are selective enough to be employed directly in blood, soil, cell lysates, and other grossly contaminated clinical and environmental samples. Because of their sensitivity, substantial background suppression, and operational convenience, these folding-based biosensors appear potentially well-suited for electronic, on-chip applications in pathogen detection, proteomics, metabolomics, and drug discovery. By supporting the low-cost, continuous monitoring of environmental pollutants, the technology could have significant implications in environmental quality control.	
Pollock, Tresa	Materials	International Center for Materials Research Center for Multifunctional Materials & Structures (CeMMaS) Materials Research Laboratory	Professor Pollock's reserach considers n ew L12-Containing Cobalt-Base Alloys. These new structural and functional materials enable a multiplicity of paths to improved efficiency in energy generation, storage, transmission and conversion. While alternative energy technologies are highly desirable, for the foreseeable future fossil fuels will be a primary energy source. This motivates discovery of new structural materials that can increase the operating temperatures within energy generation systems and provide critically needed improvements in the efficiency of power generation.	
Potoski, Matthew	Bren School of Environmental Science & Management		Dr. Potoski's research focuses on management, voluntary environmental programs, and public policy. He examines dynamics in environmental politics on a regional and global level.	http://www.bren.ucsb.edu/people/ faculty/matt_potoski.htm
Propen, Amy	Writing		Amy Propen's research interests include visual and material rhetorics, environmental rhetorics, digital and posthuman rhetorics, rhetoric and technical communication as advocacy work, writing in the disciplines, classical and contemporary rhetorical theory, animal studies, human geography, critical cartographies, and critical GIS.Her research focuses on how visual, material, multimodal, and written texts and artifacts help uncover or allow for the creation of new knowledge-making practices. She is particularly interested in the connections between technology and environmental conservation	
Pulver, Simone	Ecology, Evolution & Marine Biology; Sociology		Professor Pulver's research focuses broadly on the intersection of economic action and environmental harm and seeks to integrate theoretical frameworks from economic and environmental sociology and global environmental politics. Specifically, she has led NSF-funded research projects investigating oil industry responses to climate change, climate politics in Mexico, and low carbon investments by firms in Brazil and India. She is currently directing two new projects; one that explores changes over time in the production of pollution in three manufacturing industries in the US and the other focusing on small business responses to uncertainty in climate adaptation.	Ity/profile/989
Pye, Lori	Environmental Studies	Viridis Institute	Professor Pye is an adjunct faculty member of UCSB's Environmental Studies Department and teaches ecopsychology and environmental ethics. Dr. Pye's contribution to the developing field of ecopsychology brings together the sciences and humanities through the examination of literature, art, ecological, biological, and depth psychological principles essential to the idea of sustainability and flourishing in order to transform deeply rooted unconscious narratives that drive human practices, civic illiteracy, policies, and decisions about how we design and craft our world in both creative and destructive ways.	http://www.es.ucsb.edu/people/lecturer/lori-pye

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Rassweiler, Andrew	N/A	Marine Science Institute	Dr. Andrew Rassweiler is a marine ecologist who combines field experiments, data analysis, and mathematical modeling to address both basic and applied questions, mainly regarding temperate reef ecosystems. His work has been applied toward answering fishery management and marine conservation questions, using spatially explicit models to explore optimal fisheries management strategies and tradeoffs between achieving fishery and conservation goals. His models have been used in practical contexts as well, most notably in guiding the placement of marine protected areas as part of California's Marine Life Protection Act process. Although his expertise is in community ecology, he works closely with oceanographers, geographers, and economists to better understand the many abiotic factors influencing ecological dynamics.	
Reed, Dan	N/A	Marine Science Institute	Dan Reed is currently working on a mitigation project with The San Onofre Nuclear Generating Station (SONGS) Mitigation Monitoring Program designed to compensate for the adverse effects of a nuclear generation station on coastal resources He is also the lead principal investigator with the Santa Barbara Coastal Long Term Ecological Research program which is one of 25 research sites in the US LTER Network funded by the National Science Foundation to obtain a predictive understanding of ecological phenomena over long temporal and large spatial scales with the goal of providing the scientific community, policy makers, and society with the knowledge necessary to conserve, protect, and manage the nation's ecosystems, their biodiversity, and the services they provide	
Rice, Ronald	Communication		Professor Rice studies, among other topics, public communication campaigns, with some emphasis on environmental communication. In his most recent edition of "Public Communication Campaigns," he co-authored a chapter that applies principles of social marketing to communicating about ocean sustainability. That chapter focused on developing a strategic approach to designing and implementing messages about ocean sustainability issues, such as ocean pollution, warming, acidification, overfishing, and low oxygen levels. He has also published research on college campus water bottle usage, ocean sustainability literacy, and news images about climate change.n 2015, Professor Rice co-organized a day-long conference on Sustainable Science Communication (see http://sustech.ucsb.edu/sustainable-science-communication-conference) and a post-conference International workshop on climate and sustainability campaigns (see http://www.comm.ucsb.edu/faculty/rrice/ICA_Environmental_Communication_Post-Conference_2015.html).	
Roberts, Dar	Geography	UCSB Principal Investigator of the Southern California Wildfire Hazard Center	Dr. Roberts' research interests include urban ecology and energy balance. He has studied sustainable land use through investigating the impacts of deforestation and pasture degradation and has mapped methane emissions across landscapes. His primary research tool is remote sensing.	https://sites.google.com/site/ucsb viperlab/
Rodoplu, Volkan	Electrical & Computer Engineering	Member of Computing Solutions Group and Electronics & Photonics Solutions Group at IEE; Member of the Greenscale Center for Energy-Efficient Computing	Dr. Rodoplu's research focuses on wireless communications and networking. As a member of the Greenscale Center for Energy-Efficient Computing at the Institute for Energy Efficiency, one of the goals of his research is to curb the energy consumption of wireless networks through the development of energy-efficient protocols.	http://www.ece.ucsb.edu/rodoplu/
Rodwell, Mark	Electrical and Computer Engineering/ Institute for Energy Efficiency	Member of Electronics & Photonics Solutions Group at IEE	Dr. Rodwell's research interests include extending the operations of electronics to the highest feasible frequencies. He also looks at communication systems and energy efficient semiconductor devices. His research thus includes semiconductor devices (diodes and transistors), semiconductor fabrication process, circuit design, interconnects, instruments, and communications systems. Mark Rodwell's research focuses on extending the operation of electronics to the highest feasible frequencies. His research interests includes energy efficient semiconductor devices (diodes, transistors, photodiodes), semiconductor fabrication process, circuit design, interconnects, instruments, and communications systems. Particular interests include THz InP (indium phosphide) bipolar transistors, nm III-V MOSFETs (metal-oxidesemiconductor field-effect transistors) for both VLSI (very large scale integration) and THz (terahertz) applications, and IC (integrated circuit) design above 50 GHz (gigahertz) in both III-V and Silicon VLSI technologies.	
Salzman, Jim	Bren School of Environmental Science & Management		Dr. Salzman's broad-ranging scholarship has addressed topics spanning drinking water, trade and environment conflicts, policy instrument design, and the legal and institutional issues in creating markets for ecosystem services. His most recent book, Drinking Water: A History, was praised as a "Recommended Read" by Scientific American and is in its third printing. His co-authored casebook, International Environmental Law and Policy, is in its 5th edition and the market leader with adoptions at over two hundred schools around the world.	http://ees.Bren School of Environmental Science & Management.ucsb.edu/people/F aculty/James_salzman.htm

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Sandoval, Cristina	N/A	Coal Oil Point Reserve; Marine Science Institute	Native Plant Restoration	
Schimel, Josh	Ecology, Evolution & Marine Biology; Environmental Studies	UC Center for Environmental Implications of Nanotechnology	Dr. Schimel's research focuses on ecosystem and microbial ecology and their feedback on global climate. Specifically, his research looks at the role of soil microbes in controlling ecosystem scale processes through the linkages between plant and soil processes. Schimel's research is particularly important when analyzing the effects of increased temperature and altered rainfall patterns and CO2 emissions on global climate. Major foci of Schimel's research are on Arctic ecosystems, which store huge pools of organic carbon and are warming rapidly, and California grasslands and scrublands which experience regular droughts.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/schimel/index.htm I
Schmitt, Russell	Ecology Evolution & Marine Biology		Dr. Schmitt's research interests include population and community ecology, applied ecology, consumer-resource interactions, marine invertebrates, and reef fishes. His current research in particular attempts to understand the processes that influence population size and species diversity. In addition, Schmitt looks at the application of ecological principles to the resolution of coastal marine environmental problems.	
Schuller, Jon	Electrical & Computer Engineering	Center for Polymers and Organic Solids; Center for Energy Efficient Materials; Materials Research Laboratory; California NanoSystems Institute	The Schuller Lab conducts research that concerns novel physical phenomena that occur when light interacts with objects of subwavelength dimensions. The goal of the research is to create smaller, faster, and more efficient photonics technologies and ultimately lead to a future where optical properties are controlled and engineered at the atomic or molecular level. In a recent publication in Optics Press, the researchers in the Schuller Lab discussed the application of their research into morphology dependent light trapping in thin-film organic solar cells. Their research in this area can be used in the future in low-cost lightning and energy harvesting devices.	
Scott, Susannah	Chemical Engineering/Chemistry and Biochemistry	Mitsubishi Chemical Center for Advanced Materials	As co-principal investigator of the Center for the Sustainable Use of Renewable Feedstocks (CenSURF), Dr. Scott has participated in projects that aim to promote sustainable practices in the chemical sciences. She has researched ways to synthesize organic compounds like ethylene from fixed sources of carbon dioxide. These synthesized products can be used as alternatives to nonrenewable fossil fuels.	http://www.chemengr.ucsb.edu/~ceweb/faculty/scott/
Segalman, Rachel	Chemical Engineering		Professor Segalman's research interests include investigating structure control over soft matter on a molecular scale through nanoscopic lengthscale for use in optimizing properties for applications ranging from energy (solar and thermal) to biomaterials. She works to understand the effects of structure on properties and function and to gain pattern control in these multidimensional problems. Segalman's research can be applied in developing materials for energy applications such as photovoltaics, fuel cells, and thermoelectrics.	
Selkoe, Kim	N/A	National Center for Ecological Analysis and Synthesis (NCEAS); Marine Science Institute	Kim Selkoe's primary research interests are split between three diverse topics: advancing scientific tools for ecosystem based management and marine spatial planning, multi-species approaches to understanding marine population connectivity with 'seascape' genetic techniques, and both studying and improving consumer access to local and sustainable seafood. She is currently a P.I. on two main projects: Ecosystem Thresholds and Indicators for Marine Spatial Planning (Moore Foundation, 2012-16) and Multispecies Connectivity of Hawaii Coral Reefs (National Science Foundation, 2013-2017), as well as additional projects to quantify the genetic effects of hatchery releases on wild fish populations and incorporate genetic diversity into strategies for biodiversity conservation and restoration. She is an adjunct professor the Bren School as well as an associate at UCSB's National Center for Ecological Analysis and Synthesis and Marine Science Institute, and the Hawaii Institute of Marine Biology. Selkoe has also conducted underwater fieldwork in nearshore reef environments of Morocco, Sardinia, and the Solomon Islands as part of a continuing research project to understand how community structure changes along gradients of human impact.	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Seshadri, Ram	Chemistry and Biochemistry; Materials	Member of Lighting Solutions Group and Production & Storage Solutions Group at IEE; Institute for Multi-scale Materials Studies; Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Mitsubishi Chemical Center for Advanced Materials; Materials Research Laboratory	Professor Seshadri researches functional inorganic materials with applications in energy conversion, energy storage, and information technology. A primary goal of the research is greater efficiency in energy conversion and storage and the recovery of waste heat. In and of themselves, these are expected to significantly minimize the impact of energy technologies on the environment. In addition, his research addresses resource availability and life-cycle issues, in attempts to ensure that future energy technologies are not based on scarce or polluting elements. (Original: Ram Seshadri's research encompasses a number of areas in the chemistry of inorganic materials, including new ways of preparing materials, seeking clues from nature on how to make new high-performance materials, magnetism in inorganic solids, chemical patterning of inorganic materials on large (micrometer) length scales, and using first principles electronic structure calculations to predict new material properties. In addition to his focus on magnetism, polar materials, and porosity, Seshadri is increasingly investigating materials for heterogeneous catalysis and for applications in solid-state lighting (semiconductors, phosphors, etc.). He also extensively researches functional (particularly oxide) nanomaterials.)	http://www.chem.ucsb.edu/people/faculty/seshadri/index.shtml
Seshadri, Ram	Chemistry/ Biochemistry/ Institute for Energy Efficiency	Member of Lighting Solutions Group and Production & Storage Solutions Group at IEE Institute for Multi-scale Materials Studies Solid State Lighting and Energy Center Interdisciplinary Center for Wide Band-Gap Semiconductors Mitsubishi Chemical Center for Advanced Materials Materials Research Laboratory	Professor Seshadri researches functional inorganic materials with applications in energy conversion, energy storage, and information technology. A primary goal of the research is greater efficiency in energy conversion and storage and the recovery of waste heat. In and of themselves, these are expected to significantly minimize the impact of energy technologies on the environment. In addition, his research addresses resource availability and life-cycle issues, in attempts to ensure that future energy technologies are not based on scarce or polluting elements.	http://www.chem.ucsb.edu/people/faculty/seshadri/index.shtml
Sherman, David	Psychological & Brain Sciences		Professor Sherman's research primarily centers on how people respond to and cope with threatening events. His research extends to understanding the psychological and social barriers to sustainability and how to overcome them.	
Sherwood, Timothy	Computer Science	Member of Computing Solutions Group at IEE; Member of the Greenscale Center for Energy-Efficient Computing	Dr. Sherwood's research is in the area of computer architecture. He has worked to develop techniques that provide a powerful new way to inspect and control the digital world and shed light on energy efficiency. (From IEE website: Timothy Sherwood's research is in the area of computer architecture, specifically in the development of novel high throughput hardware and software methods by which systems can be monitored and analyzed. Such techniques provide a powerful new way to inspect and control the digital world: they shed light on energy efficiency and performance anomalies, uncover software bugs, and help secure critical systems against attack.)	http://www.cs.ucsb.edu/~sherwo od/
Shewry, Teresa	English/ Carsey-Wolf Institutre		Professor Shewry's research interests include pacific rim cultures, environmental studies, and oceans and water. She is the director of Literature and the Environment at UCSB. Her recent publications include "Possible Ecologies: Literature, Nature, and Hope in the Pacific" and "Environmental Criticism for the Twenty-First Century." Her book, Hope at Sea: Possible Ecologies in Oceanic Literature (University of Minnesota Press, 2015), explores hope in the context of environmental change in the Pacific.	http://www.english.ucsb.edu/peo ple/shewry-teresa
Siegel, David	Geography/Carsey-Wolf Center/Marine Science Institute		Dr. Siegel studies interdisciplinary marine science which couples physical, biological, optical, and biogeochemical processes. He has recently worked on collecting large scale ocean data by using ocean color variability from satellites. Differences in color can indicate distinguishing characteristics such as temperature and the overall biochemistry of the water. This data allows scientists to observe long-term trends and better understand the role oceans play in climate change as well as ascertain what marine ecosystems might look like in the future.	http://www.icess.ucsb.edu/~dave
Simms, Alex	Earth Science		Professor Simms' research focuses primarily on coastal systems. His studies use a wide variety of tools to study past depositional systems, including coring, high-resolution seismic data, GPR, and outcrop analysis to understand how past depositional systems have responded to sealevel, climate, and tectonic changes. Modeling and investing the depositional systems allow us to further understand the environmental impact of climate change and tectonic forces.	http://www.geol.ucsb.edu/faculty/ simms/

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Smith, Eric	Political Science	Center for Social Solutions to Environmental Problems	Professor Smith's work focuses on U.S. public opinion and political behavior regarding energy and environmental issues. He investigates, for example, public support for or opposition to renewable energy production facilities and offshore oil drilling. He is also working on the problem of how much people know about energy and environmental issues and why people accept or reject factual claims about energy and environmental issues by scientists.	http://www.polsci.ucsb.edu/facult y/smith/
Speck, James	Materials/ Institute for Energy Efficiency	Member of Lighting Solutions Group at IEE, Solid State Lightening and Energy Electronics Center (SSLEEC)  Director of the Interdisciplinary Center for Wide Band-Gap Semiconductors; Executive Committee Member of the Solid State Lighting & Energy Center; Steering Committee Member of the International Center for Materials Research; Executive Committee Member of the Center for Energy Efficient Materials, Materials Research Laboratory, California NanoSystems Institute"	Professor Speck's research focuses on high efficiency solid state lighting. This lighting is expected to be 10-20 times more efficient than conventional incandescent and halogen lighting and 2-3 times more efficient than fluorescent lighting.	http://www.materials.ucsb.edu/recruitment/Faculty/speck/speck.php
Steigerwald, Douglas	Economics	Econometrics Research Group	Dr. Steigerwald's research focuses on frontier econometric methods at the intersection of economics, environmental science, computer science, geography, and statistics. Currently, he is researching regional price behavior in Mexican maize markets. This research examines the resiliency of markets in the face of climate change and increasing market integration and the resultant implication for food security, livelihood change, and political security	http://www.econ.ucsb.edu/~doug/
Stohl, Michael	Communication		Professor Stohl is current involved in a project entitled: Sustainability at the Crossroads: Examining the Vulnerability of New Zealand's Global Environmental Positioning. The research project aims to understand how interested parties, including NZ policy makers, media, and business leaders think about, frame, and prioritise environmental, social and economic sustainability issues and with what consequences.	http://www.comm.ucsb.edu/people/academic/michael-stohl
Stokes, Leah	Political Sciences		Leah Stokes' research primarily examines public policy, public opinion and political behavior in North America, with a focus on energy and the environment. Her most work examines expansion and retrenchment in renewable energy policies across US states, using qualitative and quantitative methods. Her work on energy and environmental policies has been published is Energy Policy, Environmental Science & Technology, and The American Journal of Political Science. She also researches international environmental negotiations, particularly the Minamata Convention on mercury and the climate change negotiations.	http://www.polsci.ucsb.edu/facult y/stokes/
Stonich, Susan	Anthropology		Dr. Stonich currently co-directs a research project in the Mesoamerican Reef System funded by the National Oceanic and Atmospheric Administration (NOAA) Climate Program and is working with the National Shellfisheries Association, the World Wildlife Fund Mollusc Dialogue, and the NOAA Aquaculture and Habitat Conservation Program on a project to help determine standards on North American shellfish farming that are socially, economically, and environmentally sustainable. Her other research interests focus on the conflicts between economic development and environmental conservation efforts in coastal zones, environmental justice, and vulnerability and resilience to climate-related hazards and disasters.	http://www.anth.ucsb.edu/faculty/stonich/
Stratton, Elisa (Lisa)	N/A	Cheadle Center for Biodiversity and Ecological Restoration (CCBER), Earth Research Institute	Lisa Stratton has been the Director of Ecosystem Management for UCSB's Cheadle Center for Biodiversity and Ecological Restoration (CCBER) since 2005. As the manager of the campus lagoon and other open space areas on campus, she has been active in pursuing opportunities to improve water quality and provide habitat through bioswales and treatment wetlands. In conjunction with students, Dr. Stratton and CCBER conduct research on water quality, hydrology, and biological diversity which provide evidence for the benefits of these features. Interpretive signs throughout campus and web site material make their work available to a broader audience. In particular, Dr. Stratton's projects are designed to be sustainable in the face of climate change and sea level rise.	

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Stucky, Galen	Chemistry/ Biochemistry	Institute for Energy Efficiency Institute for Multi-scale Materials Studies Mitsubishi Chemical Center for Advanced Materials Center for Energy Efficient Materials Materials Research Laboratory Center for Nanomedicine California NanoSystems Institute UC Center for Environmental Implications of Nanotechnology	Dr. Stucky's research interests include biosystem processes (e.g., blood clotting, cascade chemistry, and hemostasis) and the chemistry associated with the efficient use of energy resources. He has done research that furthers the development of energy storage systems, including the use of solar photocatalytic synthesis to make high energy density useful chemicals, and he has studied the conversion of methane to chemicals and fuels.	
Suh, Sangwon	Bren School of Environmental Science & Management	Member, International Resources Panel of UNEP; WRI; WBCSD; UC Center for Environmental Implications of Nanotechnology	Dr. Suh's research focuses on sustainability through understanding materials and energy exchanges between nature and humans. His work has involved carbon footprinting, understanding drivers of greenhouse gas emissions, climate change, and industrial ecology.	http://www.Bren School of Environmental Science & Management.ucsb.edu/people/F aculty/sangwon_suh.htm
Sweeney, Stuart	Geography	Director of the Institute for Social, Behavioral, and Economic Research	Dr. Sweeney's research interests include applied statistics and spatial analysis, research methodology, demography, economic geography, and development studies. He recently conducted a study that looked at maize, one of the most economically and culturally important crops produced in Mexico. Dr. Sweeney discovered that changes in the production of this crop, caused by increased market integration and changes in irrigated land use, can impact consumption, livelihood, and food security.	http://www.geog.ucsb.edu/~swee ney/Sweeney/UCSB_GEOGRAP HY.html and http://geog.ucsb.edu/~sweeney/
Sweet, Samuel	Ecology, Evolution & Marine Biology; Earth Science	Cheadle Center for Biodiversity and Ecological Restoration	Dr. Sweet's current research is based on conservation biology, distributional ecology, and systematics of western North American and Australasian amphibians and reptiles; the ecology and systematics of monitor lizards; functional and evolutionary morphology; and ethnozoology. He is Curator of Herpetology at the Cheadle Center for Biodiversity and Ecologhical Restoration.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/sweet/
Tague, Christina	Bren School of Environmental Science & Management	Association of American Geographers; American Geophysical Union; Ecological Society of America	Dr. Tague studies ecohydrology. Her work examines climate and land use change impacts in the terrestrial environment by combining observed data with computer-based spatial models. She is currently investigating the impacts of climate change on ecosystem services and water resources in mountain regions, including the Western US, the European Alps, the Pyrenees, and select locations in China. Her work also examines how forest management practices and land development or urbanization alters biogeochemical cycling and water availability for watersheds throughout the US.	www.tagueteamlab.org
Theogarajan, Luke	Electrical & Computer Engineering	Institute for Energy Efficiency; Center for Bioengineering; California NanoSystems Institute	Dr. Theogarajan does research related to the neural system and particularly to neural prosthetic devices. Neural prosthetic devices offer a way to restore functions lost due to neural damage. He is currently investigating the use of potassium ions rather than electrons to communicate with neural tissue as part of this new technology. This method has already proved to be safer and require lower power to function than the approach currently used.	http://engineering.ucsb.edu/facult y/profile/545
Thorsch, Jennifer	N/A	Cheadle Center for Biodiversity and Ecological Restoration (CCBER); Earth Research Institute	As Director of the Cheadle Center for Biodiversity and Ecological Restoration, Jennifer Thorsch focuses on our three main programmatic areas—collections management, education, and restoration. Through her work at the CCBER, she support campus sustainability efforts by managing over 260 acres of campus lands which are planted with native species and therefore require little or no watering.	
Tilman, David	Bren School of Environmental Science & Management		Professor Tilman's research focuses on the causes, consequences, and conservation of Earth's biodiversity, and on how managed and natural ecosystems can sustainably meet human needs for food, energy, and ecosystem services. His current research explores ways to use biodiversity as a tool for biofuel production and climate stabilization through carbon sequestration. His work on sustainable agriculture and renewable energy has critically examined the full environmental, energetic and economic costs and benefits of grain crops, of current food-based biofuels, and of biofuels made from diverse mixtures of prairie grasses and other native plants growing on already-degraded lands.	
Turner, Kimberly	Mechanical Engineering/Institue for Energy Efficiency	Institute for Collaborative Biotechnologies California NanoSystems Institute	Dr. Turner's research interests include the development of synthetic adhesives that make use of large arrays of micrometer and submicron hierarchical polymer fibers for climbing robots by mimicking the fibers on gecko feet.	http://engineering.ucsb.edu/~tmems/
Valentine, Dave	Earth Science		Professor Valentine's current research projects include the study of the microbial weathering of aromatic compounds released into marine environments. His research aims to achieve a better understanding of the distribution of relevant microbial communities, rates of oxidation, and the extent to which various hydrocarbons are broken down or consumed.	http://www.coastalresearchcenter .ucsb.edu/cmi/Valentine.html

Name	Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Van De Walle, Chris	Materials	Solid State Lighting and Energy Center; Interdisciplinary Center for Wide Band-Gap Semiconductors; Materials Research Laboratory; California NanoSystems Institute	Dr. Van de Walle's research covers a broad range of issues related to renewable energy and energy efficiency. He is engaged in fundamental studies of group-III nitride semiconductors, which are the key materials for solid-state lighting and also enable a new generation of high-efficiency solar cells. In addition, he investigates hydrogen storage materials and materials for fuel cells and coatings for smart energy-saving windows.	http://www.mrl.ucsb.edu/~vande walle/
Van der Ven, Anton	Materials		Professor Van der Ven's research involves understanding and predicting equilibrium and non-equilibrium materials properties from first-principles. He combines electronic structure methods (density functional theory) with techniques from statistical mechanics to calculate thermodynamic and kinetic properties of new materials, including oxides and structures of assembled nanoparticles for battery and fuel cell components, metallic alloys, alloy surfaces for catalysis, and organic electronic materials.	
Walker, Barbara	N/A	Institute for Social, Behavioral, and Economic Research (ISBER)	Barbara Walker's research focuses on political ecology and human-environment relationships related to marine and coastal resources in California, French Polynesia, and Ghana. In Ghana, her research explores the historical social and environmental antecedents of contemporary patterns of marine environmental conservation and use. In French Polynesia, her research addresses disparities among stakeholder perceptions of environmental and climate change and the challenges associated with translating multiple and often opposing perceptions into effective marine management and climate change adaptation policies. In California, Walker studies new alternative seafood marketing arrangements to understand why and how direct marketing programs are adopted by fishermen and whether these marketing arrangements might increase the sustainability of fisheries and coastal communities.	http://www.msi.ucsb.edu/people/research-scientists/barbara-l-e-walker
Walker, Janet	Film and Media Studies	Environmental Media Initiative Research Group	Janet Walker is a specialist in documentary film, trauma and memory, and media and environment. Her books include Feminism and Documentary (Minnesota University Press, 1999; with Diane Waldman) Trauma Cinema: Documenting Incest and the Holocaust (University of California Press, 2005), Documentary Testimonies: Global Archives of Suffering (Routledge, 2010; with Bhaskar Sarkar) and, most recently, Sustainable Media: Critical Approaches to Media and Environment (Routledge, 2016; with Nicole Starosielski).	http://www.filmandmedia.ucsb.ed u/people/faculty/walker/walker.ht ml
Walsh, Casey	Anthropology		Professor Walsh researches the anthropological political economy of the Mexico-US borderlands. During the last decade, he has studied the ways in which water, land, and labor have been organized to produce commodities in areas marked by aridity, especially northern Mexico and the southwestern United States. His work in this field has been documented in his publication, "Building the Borderlands." Professor Walsh is currently writing a book about mineral springs and water cultures in Mexico.His most recent project "Groundwater and Grapes in California's Central Coast" assesses expanding wine grape cultivation on groundwater management in Santa Barbara and San Luis Obispo Counties. Particular attention is given to the recent capitalization of the sector, the depletion of aquifers, and the ensuing creation and implementation of laws regulating groundwater in California. It situates the local social and environmental dimensions of the expansion of wine grape production within global markets and climate change.	
Warner, Robert	Ecology, Evolution & Marine Biology	Marine Science Institute	Dr. Warner's research includes behavioral and evolutionary ecology, as well as population biology. Most of his work focuses on coral reef fishes and the historical ecology of coastal marine populations. His current research is on conservation biology and the science of marine reserves.	http://www.lifesci.ucsb.edu/Ecolo gy Evolution & Marine Biology/faculty/warner/index.html
Washburn, Libe	Geography	Marine Science Institute, UCSB	Dr. Washburn's research focuses on oceanographic studies to understand how ocean circulation processes affect marine communities in ocean environments. He is currently researching surface circulation patterns in the Santa Barbara Channel and investigating the importance of these flows for delivering larvae to nearshore habitats.	http://www.geog.ucsb.edu/~wash burn/
Weisbuch, Claude	Materials	Member of the Interdisciplinary Center	Dr. Weisbuch's research involves semiconductors, physics, and LEDs. He and his team of researchers recently collaborated with scientists from other universities to identify what causes light emitting diodes (LEDs) to be less efficient at high drive currents, a phenomenon known as LED 'droop.' They showed that 'droop' is caused by Auger recombination, a process by which energetic electrons, instead of emitting light, collide with other electrons and lose their energy in the form of heat. Understanding the origin of droop will lead to more efficient and cheaper LEDs. They provide long-lasting, highly efficient light sources and could further lessen the US' total electricity use from the foreseen 40% decrease if LED lamps were to replace less efficient incandescent and fluorescent lights, and accelerate the sutation.	http://industry.ucsb.edu/faculty/pr ofile/187

Department(s)	Centers and Research Units they are associated with	Brief description of how their research relates to sustainability	Website
Earth Science		monsoon rainfall variability; thermal, salinity, and productivity history of the oceans; and linkages between tropical oceans and high latitude climate and their interaction with and effect on the monsoon systems. One of Professor Weldeab's recent projects involved assessing seawater Nd isotope signatures. His research uses marine	<u>y/faculty/weldeab.php</u>
History of Art and Architecture		Professor Welter's research includes the theory and history of sustainable architecture and how the environment and architecture are related. He studies the history and culture surrounding the development of techniques used in sustainable architecture, such as passive heating and cooling in buildings.	http://www.arthistory.ucsb.edu/in dex.php?option=com_content&ta sk=view&id=113
Environmental Studies, Bren School of Environmental Science & Management		Dr. Wilkinson's research is focused on water and energy policy with regards to climate change. He has analyzed US freshwater management policies, California water supply management, and climate change adaptation strategies.	http://www.esm.ucsb.edu/people/ Faculty/robert_wilkinson.htm
Computer Science/ Institute for Energy Efficiency	Member of Building & Design Solutions Group and Computing Solutions Group at IEE Member of the Center for Energy Efficiency Design and the Greenscale Center for Energy-Efficient Computing formerly the Chief Technology Officer at Eucalyptus Systems California NanoSystems Institute	Dr. Wolski's research interests include cloud computing and large-scale high-performance distributed systems. His research includes the study of new power-aware resource management algorithms for data centers using private cloud technologies. He also makes his work available as open source through the Eucalyptus private cloud project. Eucalyptus has been used worldwide to optimize data centers through the adoption of a private cloud based IT.	http://www.youtube.com/watch?v =q3JXRiHIm9g
Chemistry and Biochemistry; Materials	Mitsubishi Chemical Center for Advanced Materials California NanoSystems Institute	Dr. Wudl performs research on plastic solar cells. The goal of his work is to develop new materials and consider new concepts that improve the efficiency of solar cells.	http://www.chem.ucsb.edu/peopl e/faculty/wudl/
Art		Bamboo DNA, in order to develop and test alternative uses for construction. Studying the traditional methods of local indigenous populations, her students explore bamboo.	
		Dr. Young specializes in institutional and international governance and environmental institutions. His research encompasses basic research, focusing on collective choice and social institutions, and applied research dealing with issues pertaining to international environmental governance and to the Arctic as an international region.	http://www.bren.ucsb.edu/people/ Faculty/oran_young.htm
Computer Science/ Institute for Energy Efficiency		Dr. Zheng's research focuses on harnessing the fundamental concepts of the human cognitive cycle and applying them to device networks. This allows the networks to manage themselves in a self-aware and adaptive manner.	http://www.cs.ucsb.edu/~htzheng
History of Art and Architecture		race, gender, and ethnicity in modern cities that are capable of enriching post-colonial	
	Earth Science  History of Art and Architecture  Environmental Studies, Bren School of Environmental Science & Management  Computer Science/Institute for Energy Efficiency  Chemistry and Biochemistry; Materials  Art  Bren School of Environmental Science & Management/ Carsey-Wolf Institute  Computer Science/Institute for Energy Efficiency  History of Art and	Earth Science  History of Art and Architecture  Environmental Studies, Bren School of Environmental Science & Management  Computer Science/ Institute for Energy Efficiency  Efficiency  Member of Building & Design Solutions Group and Computing Solutions Group and Computing Solutions Group and EE Member of the Center for Energy Efficiency Design and the Greenscale Center for Energy-Efficient Computing formerly the Chief Technology Officer at Eucalyptus Systems California NanoSystems Institute  Chemistry and Biochemistry; Materials  Art  Bren School of Environmental Science & Management/ Carsey-Wolf Institute  Director, Institute of Arctic Studies; International Human Dimensions Programme on Global Environmental Change  Computer Science/ Institute for Energy Efficiency  History of Art and Architecture	Earth Science    Professor Weldeab's research focuses on the reconstruction and understanding of past monscon rainfall variability. Thermal salinity, and productivity history of the oceans; and linkages between tropical oceans and high lattude climate and their interaction with and effect on the monscon systems. One of Professor Weldeab's recent projects involved assessing seawater Mi isotope signatures. His research weldeab's recent projects involved assessing seawater Mi isotope signatures. His research reduction in the past of the control of o

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		

Name	Department(s)	Centers and Research Units they are	Brief description of how their research relates to sustainability	Website
		associated with		