

Sustainability Focused Courses			
Title	Department	Level	Description
Physical Anthropology	ANTH	2101	Studies evolutionary theory, modern human biodiversity, human primate relatives, and human evolution.
Ecological Anthropology	ANTH	3206	Course examines human/environmental interactions with focus on how past societies did (or did not) live sustainably within their environments, and current trends in human ecology and their implications for human health and development.
Culture, Food, and Agriculture	ANTH/SOC	3204	Examines the globalization of food systems, with emphasis on connections between food and environmental destruction and local efforts to achieve sustainability.
Social Justice and Human Rights in Latin America	ANTH	3601	Studies the relationship between the U.S. and Latin America and efforts to create a more environmentally and socially sustainable development.
Ecology	BIOL	3131	This course examines principles of ecology, all of which underlie sustainability concepts; labs are focused on local communities, providing students with a sense of place. The challenges of human population growth and resource use, and climate change receive special emphasis.
Ecology	BIOL	3131	Course is a broad introduction to the science of Ecology, a key discipline contributing to our fundamental understanding of "sustainability" as a concept.
Conservation Biology	BIOL	4351	This course analyzes demographic, genetic, and habitat requirements for protecting biodiversity, along with policy impacts on population viability.
Chemistry for the Curious Citizen: The Role of Chemistry in the Environment and Everyday Life	CHEM	1001	The central nature and relevance of chemistry to the environment and everyday life is taught. Examples of topics include: air quality, the ozone layer, global warming, energy resources, and acid rain. There is discussion and debate of current events related to these topics.
The Chemistry of Sustainable Energy	CHEM	3301	The primary objective of this course is to learn about the chemistry that is fundamental to the development of any "sustainable" energy technology. The specific learning objectives are: <ul style="list-style-type: none"> • To review and expand one's fundamental understanding of the chemical principles behind current problems in energy production • To be able to read and understand timely primary literature (published research) on progress in sustainable energy research • To be able to write and speak accurately and intelligibly about progress in the chemistry-related fields of sustainable energy research.
Polymer Chemistry and the Environment	CHEM	3401	Covers many topics in polymer chemistry including those with connects to elements of the environment and environmental science. Such as, polymers from renewable feedstocks, polymers in renewable energy, green syntheses of polymers, and environmental impacts of polymers.

Environmental and Natural Resource Economics I	ECON	3007	An overview of "brown" pollution and "green" sustainability issues in environmental and natural resource economics. Emphasis on the role of market failures in causing environmental problems and on the design of market mechanisms and incentive regulations to solve those problems. Analysis of current federal policy in the areas of water and air pollution.
Environmental and Natural Resource Economics II	ECON	3008	The economic analysis of sustainability, focusing on market designs to discourage over-exploitation of both renewable and exhaustible natural resources. Topics include markets for water, fisheries, and energy.
Topics in Writing: The Environmental Imagination: Reading and Writing about the Natural World	ENGL	2106	Students write about the environment and learn to express their responses about nature and the importance of a close contact with the natural world.
Research Seminar: Imagining the Earth	ENGL	4012	Examines writing about the earth and language that transforms our perceptions of the natural world. Students read selections about understanding the natural world from science, philosophy, and ecocriticism.
Environmental Ethics	ENST	2114	Discusses the moral responsibility of people to sustain the environment.
Environmental Problems and Policy	ENST	1101	An introduction to the ways the state, national, and international political systems deal with environmental issues and goals. Looks at environmental policy and the development of environmental governance.
Water Resources Policy	ENST	3001	An examination of fundamental contemporary water resource challenges. Units on water quality (e.g., drinking water) and quantity (e.g., irrigated agriculture) encourage critical evaluation of local, national, and international water resources policy in the contexts of environmental quality, human health, and technology
Senior Capstone Experience	ENST	4901	Students engage in an individual and/or group problem solving project on a multidisciplinary topic germane to Environmental Studies and present results in a public forum.
Earth Resources	GEOL	3011	Geology of mineral, energy, and other resources. Discussion of environmental, political, and social issues surrounding resource identification, extraction, and use. Several lectures and assignments focused on sustainability, along with in-class debates on environmental issues.
Making Environmental Public Policy	POL	3272	Studies of the domestic and international politics of environmental and energy policy making. Focus on the theoretical frameworks for policy making and political behaviors surrounding development of environmental and energy policies.
Environmental Political	POL	3355	Course involves readings and discussion on the

Theory			foundations of contemporary environmental theory (e.g., Aldo Leopold, deep ecology, tragedy of the commons), current debates over seed sovereignty and the rise of genetically modified crops, green political ideologies (e.g., ecosocialism, ecofeminism, ecoanarchism), and critically examines calls for new ecological understandings of sustainability, citizenship, and democracy
Systems of Oppression	SOC	2101	Course studies patterns in group dominance, exploitation, and hate in multiple different countries, with emphasis on sexism, racism, and classism.
World Population	SOC	3131	Studies population theory and demographic methods and dynamics of fertility and mortality to predict populations and develop policies.
Sociology of the Environment and Social Development	SOC	3112	An introduction on the sociological study of the environment and social development. Discusses the impact of international environmental and development efforts on a local level, the start of environmental activism and social development work, and the inequalities in context of environmental and social development efforts.
Theories of Environmental Justice	ENST	3201	Considers development of the environmental justice movement and key contemporary environmental justice problems.
Values in the Environmental Sciences	ENST	3301	Discusses the need for the study of the environment and humans interaction with the environment from a scientific view point.
Energy Science	PYHS	1801	This course focuses on the production and consumption of energy and on the scientific, political, and economic challenges of shifting to more sustainable energy sources.
Mapping the Environment	ENST	1201	An intense immersion into the world of geographic information systems (GIS), with an emphasis on providing a foundation upon which future coursework and projects can be built. The first half of the course focuses on basic skills and functions; the second half is devoted to an environment-related mapping project
Industrial Ecology	ENST	3101	Systems thinking in the context of industrial/ environmental issues. Methods or frameworks including life cycle analysis and design for disassembly, guide an examination of product design, material choice, and flows of energy and resources into, through, and from industrial cycles.
Environmental Studies Internship/Field Experience	ENST	3996	An educational experience in a work, research, and/or field setting that provides practical application of the student's theoretical classroom learning experiences.
Global Change Ecology	BIOL	4331	Focuses on human alterations to global biogeochemical

			cycles (particularly the carbon cycle) and ways we might reduce our impact.
Ecology of Agriculture, Forestry and Biofuel Production	BIOL	4332	Examines ways in which we can sustainable meet the food, fiber and energy needs of the large population of humans on the planet.
Water Unities, Water Divides: Water Conflicts in the 21st Century.	SOC	1814	Studies water conflicts-since there is an increasing demand for water-around the world to address how countries can better manage their available water in or across their borders.
Science Saavy in Our Modern World	CHEM	1801	Through written reflections and discussions based on mainstream science books and current event articles, students explore the connections between science and society. For example in impact humans have had on CO2 levels and our warming of Earth. The course helps students to understand the role of experts and bias in the reporting. For example we review the IPCC to understand who makes the report. The course also helps students to become more science literate about the green and sustainable activities on campus.
Why We Eat What We Eat	IS	1816	Focuses on food, agriculture and culture. Encourages students to examine their attitudes about food and their eating habits, considering how they affect their own long-term health and the health of the environment. Michael Pollan's The Omnivore's Dilemma is a focus of discussions.
Fashion Trashion	ARTS	1900	Course examines sustainable and creative uses of recycled/repurposed materials in the creation of a unique garment for a runway show.
Polymer Chemistry Laboratory	CHEM	3411	Introduction of biodegradable polymers; green synthesis of polymers and renewable energy from polymers.
Sustainability-Related Course			
Title	Department	Level	Description
Beginning Ceramics	ARTS	1050	Personal expression through the medium of clay, primarily using commercially available ceramic products, but including discussion of and the use of locally gathered clay, glaze, and kilnbuilding materials when applicable and available.
Advanced Ceramics	ARTS	3650	For students who have taken ArtS 1050 Beginning Ceramics, or who have significant prior knowledge of basic ceramics. Emphasis on advanced handbuilding and wheel techniques, primarily using commercially available ceramic materials, but including discussion of and the use of locally gathered clay, glaze, and kilnbuilding materials when applicable and available.
Basic Studio 3-D Design	ARTS	1104	Preparation for advanced work in studio art.
Evolution of Biodiversity	BIOL	2101	Course partially focuses on ways to conserve global biodiversity.

Evolution of Biodiversity	BIOL	2101	Explores the biodiversity of the Earth; though primarily a systematics course, threats to biodiversity are examined
Biological Communications II	BIOL	3701	Writing, editing, and revising a review paper on a biological topic with mentorship of a faculty member. Topics of papers can incorporate sustainability.
Herpetology	BIOL	4121	includes discussion of conservation issues
Vertebrate Natural History	BIOL	4131	includes discussion of conservation issues
Freshwater Biology	BIOL	4191	Studies the structure, function, and biota of freshwater ecosystems, such as lakes, streams, and wetlands.
General Chemistry I	CHEM	1101	I incorporate concepts such as renewable energy, global warming, and energy utilization into the lectures on a regular basis. Additionally, labs have been designed to limit waste amounts and toxicity, as well as emphasize sustainability topics such as making a functional solar cell out of raspberries and soot.
General Chemistry II	CHEM	1102	Whenever possible sustainability is incorporated into lecture and problem sets to illustrate chemistry topics. For example when discussing Henry's Law we talked about CO ₂ 's role in acidifying the oceans and its viability as a CO ₂ sink. When explaining ppm as a unit we talk about water quality. In the electrochemistry chapters we include renewable energy and batteries.
Organic Chemistry Lab I	CHEM	2311	Contains two two sustainability-oriented experiments. In one, students investigate the production of cellulosic ethanol from corn stover. In the second, students perform a common organic synthesis experiment (synthesis of adipic acid from cyclohexene) using modified 'green chemistry' reagents and conditions.
Introduction to Research	CHEM	2321	Studies advanced techniques in experiment design and analysis of data. Works with synthesis of organic, organometallic, and/or inorganic compounds, with emphasis on purification and characterization. Has labs that incorporate sustainability; such as, one that synthesizes a polymer that is used in solar photovoltaics and experiments that do not generate a lot of waste or use hazardous solvents.
Analytical Chemistry	CHEM	3101	Whenever possible examples in class, on homework and exams use sustainable/environmental situations to illustrate chemical concepts. For example the potential lead in the White House garden was used to illustrate quality control and the concept of ppm (part per million) is illustrated by green house gases (types and sources).
Inorganic Chemistry Lab I	CHEM	4711	Lab experiments in inorganic/organometallic chemistry illustrating synthetic and spectroscopic techniques and has sustainability-orientated experiments.
Digital Media Computation	CMR	2321	Basic theories and practice with equipment, procedures, and skills associated with planning, writing for, and producing mediated messages. Mediated messages can include sustainable topics.
The Design of Everyday	CSCI	1801	Examines examples of everyday things, issues with the

Technologies			design of technologies for people, and the impacts of new technologies and tools on people in society.
Science in the Elementary Classroom	EIED	4103	Studies the standards, curriculum, and assessment of elementary school science. Studies broad topics within the course that relate to sustainability.
Intermediate French II	FREN	2002	Reviewing the essential structural patterns of the French language. Includes topics on the interaction between people and the environment.
Environmental Geology	GEOL	1001	Studies the effects of volcanoes, earthquakes, and floods on humans and civilization, geologic problems associated with rural and urban building, waste management and disposal, and how geological knowledge helps in discovery of fossil fuels and mineral resources.
Groundwater	GEOL	3502	Studies the origin, occurrence, and availability of groundwater, chemical character or groundwater pollution, and groundwater as a geologic agent.
Natural and Unnatural Geologic Hazards	GEOL	2001	Examines the interaction between people and geologic environments and processes.
Hydrology	GEOL	3501	Examines the hydrological cycle, rainfall-runoff relationships and generation of overland flow, along with water quality, contamination, and contaminant.
GIS and Remote Sensing	GEOL	2161	Introduction to design, development, and application of Geographic Information Systems (GIS), with an emphasis on applications in Earth and environmental sciences. Student-selected term projects can be topics on sustainability and some limited mention in several lab exercises.
Community Engagement: From Volunteerism to Social Justice	IS	1804	Students choose a service-learning project on which to focus. Several sustainability-related projects are offered as options. Students are also responsible for choosing and presenting readings related to social justice for class discussion. The readings provided as options include several sustainability-related articles.
Sagas before the Fall: Culture, Climate & Collapse in Medieval Iceland	IS	3215H	Utilizing medieval stories of human interactions with the land and modern historical scientific study (including proxy-climate records that are among the longest in the world), we explore in this course the Norse settlers of Iceland's attitudes towards and effects on the land. The readings are both literary and scientific, and while our focus is on the period c. 1000, we examine longer term effects of settlement and modern responses to historical degradation of the land.
Introductory Ethics	PHIL	2111	An introduction to philosophical accounts of what makes right acts right and wrong acts wrong, issues involving moral responsibility. Topics on the intersection of people and the environment.
Analytic Feminism	PHIL	2112	One unit of this course is devoted to the question whether all feminists should be vegetarians. We discuss different approaches to the issue and in particular the questions whether vegetarianism is ethically required of all those who fight for social justice and for a fair and healthy distribution of resources that may be sustainable in the

			future.
Atmospheric Physics	PHYS	2301	provides a comprehensive background and understanding on the thermodynamics of the atmosphere, enabling science majors to develop an informed and balanced understanding of the physical processes involved in the observation, characterization and shifting of climate. At appropriate places, the current public climate discussion is brought to the class room.
State & Local Politics	POL	2261	Has topics that discuss the role of states in environmental and energy policy.
Consumer Psychology	PSY	3503	Psychological basis for understanding consumers.
Teaching Diverse Learners	SEED	4104	Studies teaching/learning in diverse settings. Topics on learning styles, multicultural education, effects of iniquity on schooling, and intercultural communication.
Beginning Spanish I	SPAN	1001	Development of basic skills of Spanish. Topics on the intersection between people and the environment.
Beginning Spanish II	SPAN	1002	Continuation of developing basic skills of Spanish. Topics on the intersection between people and the environment.
Intermediate Spanish I	SPAN	2001	Continues the development of Spanish oral expression, vocabulary, spelling, grammar, reading, and composition. Topics on the intersection between people and the environment.
Intermediate Spanish II	SPAN	2002	Continuation of the development of Spanish oral expression, vocabulary, spelling, grammar, reading, and composition. Topics on the intersection between people and the environment.
Associated Languages: Intensive Portuguese	SPAN	2121	An accelerated study of the basic skills of Brazilian Portuguese. Topics on the intersection between people and the environment.
Irish Texts and Contexts	IS	3053	Includes attention to literature as well as landscape, and--in the latter case--to agricultural practices and their impact on the land over time. Sustainability issues are explicit when we conduct site visits.
PreCalculus I: Functions	MATH	1012	
Basic Algebra	MATH	901	
Rome: The City in Literature and Film	ITAL	1801	Addresses issues related to urban planning and sustainable development.
Introduction to Sociology	SOCY	1101	Chapters on the environment, urbanization, population
Writing for the Liberal Arts	ENGL	1601	Entry writing course with a theme that has a sustainability element . . . community, food
Writing the Nature Essay	ENGL	2173	Writing course focusing on creative non-fiction about the natural world
Archaeology	ANTH	2103	Class includes significant focus on human/environment interactions in the past, and a module devoted to "did people in the past live sustainably, and can we?"
Environmental Biology	ENST	2101	Provides EnSt and ESci majors with the background in biology that they will need if they are to understand and

			address important environmental problems like climate change and the loss of biodiversity. Human population growth and climate change are examined; labs introduce students to local communities and provide a sense of place.
Social and Ethical Implications of Technology	IS	1091	Recurring theme that draws attention to sustainability as a part of a larger ethical framework involving the responsibilities of individuals embedded in a shared environment.
Bottomdwellers in an Ocean of Air	IS	1806	This is an IC course exploring the interaction of climate and human civilization, beginning from today and now, then going back to the beginning of civilization, even to prehistoric times. The intricate interplay between food supply, shelter, and productive output and the climatic conditions, as well as successes and failures in adaptation to shifting climate are explored through series of readings and discussions. A background in basic atmospheric physics is included.
Basic Studio Drawing I	ARTS	1101	Non toxic materials and recycled materials.
Basic Studio Drawing II	ARTS	1102	Non toxic materials and recycled materials.
Advanced Drawing I	ARTS	3100	Non toxic materials and recycled materials.
Advanced Drawing II	ARTS	3110	Non toxic materials and recycled materials.
Fabric As Form	ARTS	3005	Non toxic materials, processes and recycled materials.
The Animals Around Us	BIOL	1801	includes discussion of wildlife and human society, conservation issues
Power & Politics in American Cities & Communities	POL	2262	Topics on the intersection between people and the environment.