

SUSTAINABILITY COURSES

TITLE	DEPARTMENT	LEVEL
ART 3357 Sustainable Design	Art	UG
CIRP 4320: Sustainable Communities	Planning	UG
ENGR 2300 Introduction to Sustainable Engineering	Engineering	UG
ENGR 4395 Sustainable Engineering Design Project	Engineering	UG
GEOG 2406 Natural Resources and Sustainability	Geology	UG
HIST 4388 Unsustainable: Destruction, Extinction, and Catastrophic Failure in History	History	UG
INTS 4388 Food Insecurity and Sustainability	Interdisciplinary Studies	UG
PAPP 4305 Foundations of Environmental Protection and Sustainability	Planning	UG

COURSES THAT INCLUDE SUSTAINABILITY (descriptions in right column)

TITLE	DEPARTMENT	LEVEL	DESCRIPTION
ANTH 4460 Zooarcheology	Sociology and Anthropology	UG	Topics include paleoecology, the domestication spectrum, sustainability and collapse of past foraging and herding strategies, and the application of zooarchaeological data in conservation research.
ARCH 4307/5307 Life of Cities	Architecture	UG,G	Includes units on environmental justice in urban environments and strategies for resiliency in 21st century city planning in the face of natural disasters.
ARCH 3331 Architecture and Environment	Architecture	UG	An overview of sustainable design integrated with natural resource conservation and issues of sustainability.
ARCH 4314 Historic Preservation and Restoration	Architecture	UG	Concepts and implementation of the restoration and preservation of historic structures with regard to the sustainability of places.
ARCH 4330 Energy Use and Conservation in Architecture	Architecture	UG	Basic concepts of the efficient use and conservation of energy related to architectural design principles of sustainability.
ARCH 4360 Politics and Practice of Preservation	Architecture	UG	The history and theory of preservation and of the political context that influence these, especially regarding how to sustain urban environments and neighborhoods.
BIOL 1334 Life on Earth: Evolution, Ecology, and Global Change	Biology	UG	Students spend approximately 1/3 of the semester studying ecology, with sustainability applications throughout this unit, including a chapter specifically dedicated to sustainability.
BIOL 1442 Evolution & Ecology	Biology	UG	Students spend approximately half of the semester studying ecology, with sustainability applications throughout this unit, including a chapter specifically dedicated to conservation biology and global change.

BIOL 3310 Sustenance & Sustainability: The Human Ecology of Food	Biology	UG	Sustainability is the predominant theme in the food ecology seminar. We spend more than half of the semester exploring the ecological consequences of modern food production.
BIOL 3328. Environmental Microbiology	Biology	UG	This course explores both the role of microbes in the biogeochemical cycles that maintain sustainable ecosystems and disruptions of the cycles that decrease the sustainability of ecosystems.
BIOL 3355 Toxicology	Biology	UG	This course includes sustainability content around topics such as regulation of emissions and industrial waste, other active and passive hazard control methods, conservation of biodiversity for therapeutic potential, pollution of media, and the sources and environmental fate of various toxic agents.
BIOL 3356 Environmental Systems, Biological Aspects	Biology	UG	About half the course content is devoted to applying principles of ecology to sustainability in three contexts in aquatic ecology: eutrophication, acidification, and fisheries. Students also write a term paper on a topic of their choice that applies ecological principles to an environmental problem with biological content, and work in writing circles to support each other's efforts.
BIOL 3457 General Ecology	Biology	UG	An examination of the theoretical and experimental aspects of the relationship between the biological and physical environments (organisms, food, space, and time) at the individual, population, community, and ecosystem levels regarding sustainability.
BIOL 4338 Community Ecology	Biology	UG	The effects interspecific interactions have on the distribution and abundance of organisms and sustaining diversity.
BIOL 4350 Conservation Biology	Biology	UG	Introduction to theory and practice of conservation biology, with emphasis on applications of modern quantitative and genetic techniques to preservation of organisms and habitats. Topics include identification and prioritization of units for protection; conservation genetics; preserve design and sustainability; public policy issues; and case studies.
CE 3131 Environmental Analysis	Civil Engineering	UG	Laboratory examinations of water, wastewater, and air. Water and air quality parameters and their significance. Sources and types of pollutants and their effects, especially how they threaten the sustainability of ecosystems.
CE 3334 Principles of Environmental Engineering	Civil Engineering	UG	Physical, chemical, and biological unit operations and processes in an air, water, and land environment and how they contribute to sustainable systems.
CE 4323 Landfill Design	Civil Engineering	UG	Introduction and types of landfills, landfill site selection, siting and configuration, compacted and geosynthetic clay liners, final cover design,

			landfill settlement and slope stability, post closure uses of landfills, leachate and gas generation, collection and removal system, bioreactor landfills and future trends. Focus on sustainable waste practices.
CE 4350 Introduction to Air Pollution	Civil Engineering	UG	Sustainability encompasses environment, economics, and social aspects. The entire air quality course covers types of pollutants, sources, effects, emission estimates, controlling and minimizing air pollution using available technologies and various strategies to achieve sustainable environment.
CE 4351 Physical Unit Processes	Civil Engineering	UG	Physical, chemical, and biological unit operations and processes in an air, water, and land environments and how they contribute to sustainable ecosystems.
CE 4354 Introduction to Solid and Hazardous Waste Management	Civil Engineering	UG	Sources, chemistry, monitoring, and classifications of solid and hazardous wastes regarding how they disrupt the sustainability of ecosystems. Discussions of environmental hazards, legal aspects, transportation, detoxification, storage, and disposal and incineration.
CHEM 1345 Chemistry and the World Around Us	Chemistry	UG	Sustainability and green chemistry are the main topics of the first chapter we cover. These topics continue to be a theme that is revisited within the context of all of the following chapters
CHEM 1446 Chemistry II for Non-Science Majors	Chemistry	UG	Continuation of the chemistry of things of everyday life. Vitamins, minerals, chemical additives, plastics, cosmetics, proteins, carbohydrates, poisons, fats, and oils.
CHEM 4461 Instrumental Analysis	Chemistry	UG	Instrumental analysis includes a problems-based laboratory where students can choose their areas of interest for investigation, including a variety of analytical problems that pertain to environmental analysis and recyclable materials analysis
ECON 4302 Environmental Economics	Economics	UG	Includes renewable energies from the ocean (from ocean currents and tides ocean); energy-related sustainability and climate change
ENGL 1303 Epidemic	English	UG	This course questions how a major city would respond to an epidemic, examining the sustainability of services and culture.
ENGL 2303 Topics in Literature: Animals	English	UG	A study of how animals are depicted in literature, especially when the sustainability of their habitats is threatened.
ENGL 2303 Environmental Literature	English	UG	This course looks at the history of environmental literature and how it progressed to notions of sustainability.
ENGL 2303: Animals	English	UG	A section of the course focuses on issues of sustainability by examining animal extinction stemming from human actions. This section of the course asks that students consider the material,

			ethical, and future consequences of actions on ecosystems and the various inhabitants.
ENGL 2302:Environmental Literature and Film.	English	UG	Similar to 2329, but includes non-American texts. Also, rather than a section on food the course has a section on genetic engineering and hybridity.
ENGL 2303: Weird Westerners	English	UG	A section of the course focuses on historical issues of sustainability in the American West by examining how science fiction authors look to "future" western novels and films. This section asks students to consider our past actions and the material, ethical, and future consequences of actions on ecosystems and the various inhabitants by reading futuristic reimagined westerns (whether on Earth or other planets).
ENGL 2329 Exploring Beyond the Human	English	UG	In this course students read, discuss, and write about texts that focused on constructions of the category of "the human" in relation to the environment, and how environmental attitudes in texts influence ideas about environmental stewardship and sustainability.
ENGL 2329. American Literature. Wilderness, Food, Animals.	English	UG	All the sections of this course focus on sustainability. The first section looks at the history of American environmental writing and includes issues such as conservation vs preservation, land ethics, and definitions of wilderness. The second section focuses on Environmental Justice and sustainability for minority populations. The final section focuses on food and sustainability.
ENGL 3376: Business/Professional Writing	English	UG	An advanced writing course that focuses on writing in the workplace. Emphasis is placed upon producing business and professional documents based on current, standardized formats; considering the role of audience; writing in a clear, concise, and appropriate style; and revising texts to improve their effectiveness. <i>The Handbook of Sustainability Literacy: Skills for a Changing World</i> by Arran Stibbe is the recommended text for the class.
ENGL 3385: Rhetoric and the Environment	English	UG	This course examines the use of rhetorical appeals and discourse in environmental and sustainability issues.

GEOG 2302 Introduction to Human Geography	Geography	UG	The course introduces students to geographical perspectives on the relationships between humans and the environment. This includes a focus on how the spatial organization of human activities (e.g., urbanization, global trade, agriculture, governance) influences the ways in which sustainability is practiced and policies of sustainable development are constructed.
GEOL 1330 Global Warming	Geology	UG	Global environmental challenges confronting humanity such as pollution, depletion of natural resources, ecosystem deterioration, food production, population growth and how these issues are related to sustainability.
GEOL 1340 Weather and Climate	Geology	UG	Nature and variability of weather and climate, including wind, temperature, clouds and precipitation, droughts and flooding. Storm systems, fronts, thunderstorms, tornadoes, hurricanes, atmospheric chemistry and air pollution, especially how these disrupt sustainable ecosystems.
GEOL 1350: Intro to Oceanography.	Geology	UG	The study of ocean basins and their origin, ocean currents, waves and tides, properties of sea water, and the sustainability of marine ecosystems, emphasizing the role of the ocean in the Earth system.
GEOL 1450 Introduction to Oceanography	Geology	UG	Introduction in oceanography and marine sustainability.
GEOL 4308. Environmental Geochemistry	Geology	UG	The geochemistry of natural waters with emphasis on processes that control solute concentrations including complexation reactions, oxidation and reduction reactions, biogeochemistry, and chemical weathering reactions.
GEOL 4325: Paleoclimate and Climate Change	Geology	UG	Climate change throughout geologic time, especially the last 100 million years: models of the climate system, reconstruction and modeling of past climates, abrupt climate change, warm climates, paleoclimatology, climate change and mass extinctions. Sustainability is discussed within the parameters of each of these aspects.
GEOL 4405 Meteorology and Climatology	Geology	UG	Includes sustainable air quality and introduction into green energy (solar and wind); energy related sustainability and climate change
GEOL 4464 Physical Oceanography	Geology	UG	Includes renewable energies from the ocean (from ocean currents and tides ocean); energy-related sustainability and climate change
HIST 3327: New South	History	UG	From military defeat to Sun Belt growth. Topics include Reconstruction, segregation, migration of Southerners to the North and West, depressions, reforms, Civil Rights, Moral Majority, cultural expressions

			in literature and music, with a focus upon the sustainability of southern culture.
HIST 4388 Topics in History: Rivers in American History	History	UG	Examines America's rivers in both cultural and transportation terms, especially as a sustainable network for moving goods.
INTS 4388 Introduction to Native America	Interdisciplinary Studies	UG	The historical living customs of Native Americans are studied, especially with regard sustainability due to their minimal impact upon environments and ecosystems.
LARC 5312/ARCH 4353 History of Landscape Architecture	Landscape Architecture	UG, G	Focuses on changing attitudes toward nature and the environment from 1500 to the present as well as 20th century issues in landscape conservation and the impact of the environmental movement on the landscape architecture profession.
LING 4362/5362 Language Documentation	Linguistics	UG, G	Sustaining disappearing languages practiced by indigenous peoples is the topic of this course, as well as how these languages are documented in written and aural ways.
MAE 4301: Solar Thermal Energy	Mechanical Engineering	UG	The course provides an overview of solar thermal energy collection and utilization: 1) from a fundamental understanding of radiation heat transfer, 2) to how the solar industry works to assess the current sustainability issues
MAE 4386: Wind and Ocean Current Energy Harvesting	Mechanical Engineering	UG	Wind and ocean currents represent secondary streams of energy derived from the primary solar radiation stream. Harvesting energy from wind and ocean currents constitutes a fundamental component of present, near term, and in particular long term sustainable energy sourcing strategies aimed at meeting societal needs. In this course the fundamentals of harvesting energy from fluid motion and its successive conversions down to wall outlet electrical energy are covered from an engineering perspective, together with a discussion of the equally important aspects of environmental impact and societal acceptance.
PHIL 4388: Topics in the History of Philosophy: Evolution and Intelligent Design	Philosophy and Humanities	UG	This course includes material on evolutionary theory, adaptation, and the role of ecological factors in natural history (e.g., causes of mass extinctions).
PLAN 1301: Introduction to Urban Life	Planning	UG	Coursework includes case studies of the increasing role cities are playing in ensuring sustainability initiatives in their building codes and how cities and other local government units are implementing green building practices in the improvement of existing public facilities and the development of new ones such as city halls, libraries, public safety buildings, and more.
POLS 4392: Violence, Scarcity, and	Political Science	UG	Explores various components of human security, with specific sections

Norms in Global Politics			on issues that affect sustainability of the earth and its human population, including environmental security, demographic change, war, public health, and food security.
POLS 5334: Violence and Deprivation in World Politics	Political Science	G	Provides a detailed examination of how human activity can affect sustainability, including through patterns of war, migration, economic activity, public health, and environmental degradation.
SCIE 3305: Environmental Systems	Science	UG	Topics include interrelationships among biotic and abiotic factors within habitats, ecosystems, and biomes and the energy flow through environmental systems, and the necessity to maintain these sustainable systems.
SOCI 3348 The Sociology of Risk	Sociology	UG	This course focuses on risk perceptions and risk assessment as well as the management of risk in contemporary societies. Sustainability and the environment are recurring themes throughout the course – for example, as we discuss risks as hybrids of culture and nature, different perspectives on the concept of nature, and prepping as a response to concerns over the environment.
SOCI 3347 Environmental Sociology	Sociology	UG	Topics include the social roots of environmental problems, inequalities in the distribution of environmental hazards, case studies of environmental problems, and new directions in sustainable development