ENVIRONMENTAL STUDIES (ENVS)

BIOL 117 — Environmental Science Course count: 1
The goal of this course is to provide an understanding of major environmental problems by studying their biological bases. Applied and basic material will be integrated in most sections. Basic topics include ecosystem structure, energy flow, biogeochemical cycles, population growth and regulation and environmental policy. Applied topics include human population growth, agriculture and food production, pest control, conservation of forests and wildlife, preservation of biological diversity, energy use, water and air pollution and atmospheric climate change.

GPA units: 1
Common Area: Natural Science
Typically Offered: Fall, Spring

BIOL 163 — Introduction to Biol Diversity and Ecology Course count: 1
An introduction to evolution, ecology and the diversity of life: plants, animals, fungi, protists and prokaryotes. Intended for all biology and environmental studies majors.

Prerequisite: BIOL 117 or BIOL 162 or by permission of Instructor.
GPA units: 1.25
Common Area: Natural Science
Typically Offered: Fall, Spring

BIOL 201 — Microbiology of a Hurricane Course count: 1
This course will introduce students to scientific thinking and give a brief introduction to the biology of bacteria, viruses and fungi. Emphasis will then shift to examining the role of microbes within hurricanes and environments affected by hurricanes through review of scientific literature. Topics will include, outbreaks of infectious diseases, spread of antibiotic resistance, bioremediation of contaminated sites and bioenergy.

GPA units: 1
Common Area: Natural Science

BIOL 223 — Microbiology Course count: 1
A comprehensive introduction to microbiology. This course provides an overview of microorganisms, including their structure and function, growth, ecology, genetics, taxonomy, and evolution. Emphasis is placed on prokaryotes and viruses. The laboratory emphasizes enrichment and pure culture methods, diagnostic microbiology, and physiology. Includes laboratory. Biological Diversity.

Prerequisite: BIOL 161; Prerequisite or Corequisite CHEM 222
GPA units: 1.25
Typically Offered: Annually

BIOL 233 — Freshwater Ecology Course count: 1
A comprehensive introduction to the hydrology, chemistry, and ecology of freshwater ecosystems. The laboratory component includes field work in several ecosystems (lake, stream, reservoir, river and wetland) and laboratory work characterizing the chemistry and biology of these diverse ecosystems. Includes laboratory and field work. Ecological and evolutionary biology.

Prerequisite: BIOL 163
GPA units: 1.25
Typically Offered: Annually

BIOL 235 — Marine Biology Course count: 1
This course presents a survey of the organisms that live in the sea and their adaptations to the marine environment. The course covers the major divisions of marine life and their diversity of form, as well as common ecological patterns, physiological processes and evolutionary strategies. The function and role of coastal, open-ocean, and deep sea ecosystems are also considered, as is the relevance of marine biology to current scientific, social, health, and economic affairs. Includes laboratory. Ecological and evolutionary biology.

Prerequisite: BIOL 163
GPA units: 1.25
Common Area: Natural Science
Typically Offered: Annually

BIOL 250 — Field Botany Course count: 1
An introduction to the local vascular flora, emphasizing identification of ferns, woody plants and plants flowering in the fall. The course will include training in use of field guides and technical keys and preparation of herbarium specimens. Includes field and laboratory work. Biological Diversity.

Prerequisite: BIOL 163 or by permission.
GPA units: 1
Typically Offered: Alternate Years

BIOL 275 — Biological Statistics Course count: 1
An introduction to the handling, analysis, and interpretation of biological data. Topics include descriptive statistics, probability distributions, goodness of fit tests, hypothesis testing, analysis of variance, regression, and correlation.

Prerequisite: BIOL 161 or BIOL 162 or BIOL 163. Students who have taken ECON 249, MATH 220, PSYC 200 or SOCL 226 may not enroll in the class.
GPA units: 1
Typically Offered: Fall, Spring

BIOL 280 — Ecology Course count: 1
A broad introduction to the study of relationships between organisms and their environments, with coverage of individual organisms, populations, communities and ecosystems, as well as natural history of New England. Includes laboratory and field work. Ecological and evolutionary biology.

Prerequisite: BIOL 163.
GPA units: 1.25
Typically Offered: Annually
**BIOL 331 — Ecosystem Ecology** Course count: 1
The course covers the history of ecosystem ecology, biogeochemical cycles and budgets, ecosystem energetics and trophic structure, and the response of ecosystems to disturbance and human-accelerated environmental change. The latter part of the course emphasizes discussion of recent primary literature that contributes to the conceptual framework underlying the management and conservation of diverse ecosystems. Ecological and evolutionary biology.

Prerequisite: BIOL 163 and BIOL 233, or BIOL 235 or BIOL 280
GPA units: 1
Typically Offered: Alternate Years

**BIOL 361 — Toxicology** Course count: 1
The study of adverse effects of chemicals on biological systems. Topics include measurements of toxicity; dose-response relationships; the absorption, distribution, metabolism and excretion of toxicants; targets of toxicity; genetic toxicology; carcinogenesis; developmental toxicity; clinical toxicology; environmental toxicology; and regulatory toxicology. Organismal biology.

Prerequisite: BIOL 161 and 162, and CHEM 221
GPA units: 1
Typically Offered: Annually

**BIOL 381 — Conservation Biology** Course count: 1
A study of the effects of human activity on biological diversity at the population and system levels. Topics include the underlying philosophical approaches to conservation, techniques for measuring biological diversity, for assessing and predicting changes, the principles of management and restoration and the use of mathematical models in management. Classes will be a mix of lecture on general principles plus student-led discussion of case studies and of the recent conservation literature. Ecological and evolutionary biology.

Prerequisite: BIOL 233 or 261 or 262 or 280 or 331. BIOL 162 is recommended or by permission of instructor.
GPA units: 1
Typically Offered: Alternate Years

**CHEM 141 — Environmental Chemistry** Course count: 1
Investigates the chemistry of the Earth's environment through systematic studies of our atmosphere, hydrosphere and lithosphere and the exchange and interplay between them. The primary focus of the course will be environmental change taking place today including those that threaten plant and animal habitats and pose hazards to human health. Understanding of our environment and current threats to it will be gained through a combination of readings, lectures, discussions, demonstrations, and problem sets.

Antirequisite: Students who have taken CHEM 181 may not enroll in this course.
GPA units: 1
Common Area: Natural Science
Typically Offered: Every Third Year

**CHEM 181 — Atoms & Molecules** Course count: 1
This introductory general chemistry course leads students to explore in-depth the scientific method through the formulation and testing of hypotheses in the laboratory. Laboratory experiments lead students to discover basic principles, i.e., stoichiometric relationships, electronic configuration and molecular structure. Lectures will explain and expand upon laboratory results. This is first course in the Discovery Chemistry Core sequence for science majors and students interested in health professions. This course includes both lecture and a weekly "Discovery Lab" session.

GPA units: 1.5
Common Area: Natural Science
Typically Offered: Annually Fall

**CHEM 231 — Equilibrium & Reactivity** Course count: 1
Focuses on studying and understanding the role equilibrium, thermodynamics and kinetics play in chemical systems. Specific topics include phase and chemical equilibria, colligative properties of solutions, acid/base equilibria, chemical kinetics, electrochemistry, thermodynamics including enthalpy, entropy and free energy, and gas laws. Laboratory focused, this general chemistry course also introduces students to modern analytical instrumentation while developing critical wet chemical analytical techniques. One four-hour discovery laboratory session per week is included.

Prerequisite: CHEM 181 and one semester of Calculus.
GPA units: 1.5
Typically Offered: Spring

**CLAS 233 — Nature in the Classical World** Course count: 1
In this course, we will explore how the ancient Greeks and Romans engaged with the natural world surrounding them. Our course will consider several themes, including the relationship between city and country; philosophical treatments of the natural world; the role of the environment in literature; and the conceptualization of the universe and its origins. We will base our discussion of these themes on our analysis of evidence from antiquity, which will span both material remains like Greek temples and Roman villas as well as literary and philosophical works central to western civilization. Looking back at ancient philosophy, pastoral poems, and early epics, we will read selections from authors such as the pre-Socratic philosophers, Homer, Hesiod, Plato, Aristotle, Lucretius, and Seneca. Alongside our study of the ancient world, we will glance ahead to consider the reception of the Greeks and Romans' treatment of nature, with our contemporary readings including selections from Pope Francis encyclical Laudato Si.

GPA units: 1
Common Area: Literature, Philosophical Studies
Typically Offered: Alternate Years
ECON 110 — Principles of Economics Course count: 1
Economics is the study of the allocation of scarce resources among competing uses. This course is an introduction to economic issues and the tools that economists use to study those issues: supply and demand, decision making by consumers and firms, market failures, economic output and growth, fiscal and monetary policy in relation to unemployment and inflation, interest rates, technological progress, and international economics. Topics include both the study of markets and the need for public policy/government action to address market failures. Course is intended for students who are considering all majors or concentrations which require an introductory economics course. Course makes use of graphing and algebra, and meets for four hours per week.

Antirequisite: Students who have taken either ECON 111 or ECON 112 may not enroll in this course.
GPA units: 1.25
Common Area: Social Science
Typically Offered: Fall, Spring

ECON 224 — Environmental Economics Course count: 1
Shows how natural resource usage and environmental issues can be analyzed from an economic perspective. Presents the basic concepts of environmental economics and develops the analytical and policy tools used in environmental economics. Considers the problems of air pollution, water pollution and solid and hazardous waste management, their causes and how they can be reduced. Other topics such as global warming, amendments to the Clean Air Act and international environmental issues will be discussed.

Prerequisite: ECON 110 or ECON 111 and ECON 112 or ENVS major and ECON 112.
GPA units: 1
Common Area: Social Science
Typically Offered: Annually

ENGL 344 — The Romantic Revolution Course count: 1

GPA units: 1
Common Area: Literature
Typically Offered: Alternate Years

ENGL 351 — Thoreau: Then and Now Course count: 1
We will study Thoreau’s works and their legacy today. The first half of the semester will focus on Thoreau’s most influential texts from the more literary (his wonderful Journals, Walden, and Civil Disobedience), to the more scientific (Dispersion of Seeds and his land and river surveys). The second half of the course will explore how people use Thoreau’s ideas today including the Tiny House movement, and the writings of Wendell Berry, Annie Dillard, Barbara Kingsolver, and more recent examples. To contrast Thoreau’s own non-survivalist approach to nature, we will read Christopher MacCandless’s experiment in Alaska as reported by Jon Krakauer in Into the Wild. To inscribe Thoreau more deeply in our own experience, we will make several field trips to Thoreau sites (up to 3 required, beyond that the trips are optional). We will read from Walden at Walden Pond, from his Week on the Concord and Merrimack Rivers while we canoe the Concord River, and perhaps hike Mt. Wachusett after reading Thoreau’s A Walk to Wachusett.

GPA units: 1
Common Area: Literature
Typically Offered: Every Third Year

ENGL 377 — Environmental Poetics Course count: 1
Rather than provide a survey of environmental literature, this course will explore how various literary texts imagine a relation (or non-relation) between the human being and the non-human world. We will consider works from multiple genres and time periods alongside longstanding and recent theoretical approaches to the question of nature. How do imaginative writers represent the place of the human being in the larger, “natural” world? Do their texts have an ethical or political valence? What kind of local and global environments do they represent, or attempt to bring into being? What place does human labor, or human indolence, have in shaping the world? What role does the animal take in human imagining? Assignments are designed to help students frame these and other questions for themselves while attending closely to questions of literary form.

GPA units: 1
Common Area: Literature
Typically Offered: Every Third Year

ENVS 200 — Environmental Law Course count: 1
Environmental law is controversial and fascinating. Consider some of these newspaper headlines: “Scientist Say Climate Heating Up,” “Pesticides Found in Local Groundwater,” “Endangered Salamander Stops Development.” Environmental law and policy are a part of everyday life. The challenges to environmental quality have a critical influence on where we live and how well we live and, most important, the kind of world in which our children and their children will live.

GPA units: 1
Typically Offered: Annually
ENVS 247 — Introduction to Geographic Info Systems
Course count: 1
Introduces and explores the fundamental concepts of Geographic Information Systems. GIS technology combines computerized mapping and database management to implement maps on the computer. GIS is used in a diversity of fields ranging from archaeology to zoology, some specific examples being anthropology, epidemiology, facilities management, forestry, geology, and business. Explains the structure and function of GISs, placing them in the context of computer information systems, cartography, and supporting disciplines such as remote sensing, and shows why and how GIS is important. Covers basic concepts such as map characteristics and projections, spatial data models, relational databases, and spatial analysis. Explores sources of data, data quality, metadata. Implementation and management of GIS projects, choosing a GIS, and the application of GIS are presented. Examples and data sets are taken from the fields of ecology and environment biology.

Prerequisite: Enrollment is limited to ENVS majors or minors only.
GPA units: 1
Typically Offered: Annually

ENVS 400 — Tutorial
Course count: 1
GPA units: 1

ENVS 401 — Directed Readings
Course count: 1
GPA units: 1

ENVS 402 — Undergraduate Research
Course count: 1
GPA units: 1

GEOS 150 — Introduction to Geology
Course count: 1
This course covers the physical processes and history of the Earth. Topics typically include the formation of the Earth, physical properties and identification of minerals and rocks, plate tectonics, earthquakes, volcanoes, geologic time, surface processes, the geology of energy resources, and global climate change. Field trips to local geologic sites provide hands-on experience using classic and modern approaches to investigating the Earth and its history. Students who have completed Geosciences 140 (Environmental Geology) may not enroll in this course. Includes laboratory.

GPA units: 1.25
Common Area: Natural Science
Typically Offered: Annually

GEOS 270 — Watershed Hydrology
Course count: 1
Watershed Hydrology is an introduction to the movement and storage of atmospheric, surface, and ground water within a watershed. This class examines hydrologic processes and the geologic and topographic characteristics that control them, as well as how hydrologic data are collected and analyzed. Topics include the hydrologic cycle, water budgets, precipitation, evaporation, snow hydrology, infiltration, groundwater hydrology and contamination, runoff, stream flow, hydrographs, and flooding. Hydrology is a highly quantitative discipline and math at the pre-calculus level will be used extensively in this course. Prior college math or geoscience coursework is recommended but not required. Includes laboratory.

GPA units: 1.25
Typically Offered: Alternate Years

GEOS 350 — Oceanography
Course count: 1
This course is an introduction to the inter-disciplinary study of the worlds oceans, and provides an overview of the main oceanographic sub-disciplines: biological, chemical, geological, and physical oceanography. The course will cover topics related to the science underlying global climate change, ocean acidification, ocean warming, sea level rise, marine pollution, resource extraction, and meteorology. A solid understanding of how the world ocean works and humanities association with it is fundamental to the appreciation, preservation, utilization, and protection of oceanic environments worldwide.

Prerequisite: CHEM 231
GPA units: 1
Typically Offered: Alternate Years

HIST 122 — Food, Power, & Environment
Course count: 1
The story of the American food system is fundamentally an environmental one. Over the past several centuries food production has evolved from a process that was bound by seasonal, regional, and other ecological limitations, to a highly industrialized and astoundingly productive system that defies these earlier limitations. For most Americans, food exists in the abstract. We find it at restaurants and in grocery stores with little sense of how it came from the earth and to our tables. Indeed, we expect to eat whatever we might desire regardless of what time of the year, which is an astoundingly new reality in the grand scope of human history!

GPA units: 1
Common Area: Historical Studies

GEOS 210 — Geomorphology
Course count: 1
Geomorphology is an introduction to landforms and the geological processes that modify Earth’s surface. Topics include tectonic, wind, soil, hillslope, glacial, and river processes; modern quantitative methods of investigating landscapes, including numerical modeling and GIS; and the influences of humans, climate, and biologic activity on surface processes and the physical environment. Includes computer and field work in the weekly laboratory.

GPA units: 1.25
Common Area: Natural Science
Typically Offered: Alternate Years
HIST 140 — Nature and Society in American History
Course count: 1
This course combines a survey of traditional environmental history, exploring the changing relationships between people and the natural environment in the United States, from early agrarianism to the emergence of industry and market economics, urbanization, suburbanization, and modern debates over sustainability as both an individual and communal ethic. In addition to this broad survey of policy, students will develop particular themes: competing visions of nature and natural resources as raw materials for human development; how technological development shaped these attitudes explore the varied ways that nature and its resources became critical means of defining and asserting competing political, economic, cultural, and even religious identities over others; the historical origins of environmentalism and its limitations in addressing the needs and voices of marginalized communities.

4th year History majors are not eligible to enroll in this course.
GPA units: 1
Common Area: Historical Studies
Typically Offered: Alternate Years, Spring

HIST 230 — Environmental History
Course count: 1
Beginning with the early civilizations of Mesopotamia, Mesoamerica, China, and the Mediterranean, this course integrates human experience with the natural order. Examines changing ratios of humans to the land and of humans to other species and the impact of the transfer of plants, animals, and diseases between the hemispheres after 1492. Considers how perceptions of nature have differed over time. Case studies of environmental crises in the contemporary world are based on their 19th- and 20th-century roots.
GPA units: 1
Common Area: Historical Studies
Typically Offered: Alternate Years

HIST 305 — America’s First Global Age
Course count: 1
There is great talk about “globalization” and “global economies” during the late 20th and early 21st centuries. However, people living in America were touched by global economic processes as early as the time of Columbus. This course explores North America’s first global age beginning in the 1400s and extending through the 1860s. It examines this history thematically by focusing on various kinds of trades and industries such as gold, fish, timber, tobacco, silver, sugar, alcohol, fur, coffee, tea, and cotton. In addition to economic processes, the course addresses the social, cultural, and political implications of these global trade connections for Americans of African, European, and Native descent. Fulfills one pre-modern/pre-industrial requirement for the major.
Prerequisite: HIST 200 or permission of the Instructor. Students who have taken MONT 102G in Fall 2016, or MONT 103G in Spring 2017 are unable to enroll in this course.
GPA units: 1
Common Area: Historical Studies
Typically Offered: Fall

MATH 303 — Mathematical Models
Course count: 1
Introduction to the role of mathematics as a modeling tool, including the construction, interpretation and application of mathematical models. Applications chosen to illustrate various modeling paradigms such as deterministic, probabilistic, discrete and continuous modeling and may include population dynamics, biomedical applications, stock market analysis, and network and traffic flows.
Prerequisite: MATH 241 and MATH 244 or equivalent or permission from Instructor.
GPA units: 1
Typically Offered: Alternate Years

PHIL 247 — Environmental Political Philosophy
Course count: 1
The class begins with a survey of environmental philosophy, exploring anthropocentrism, sentiocentrism, biocentrism, and ecocentrism. With those in hand, we explore the question of what the government ought to do about it. We then study four contemporary political theories: liberalism, libertarianism, conservatism, and capabilities theory. Each of these theories is deeply anthropocentric (human-centered) in its original form, but some are easier to “green” than others and we will test them all to see which can incorporate the values driving the different environmental positions. Throughout we will debate whether we should green the theories (and if so, which way?) and we will repeatedly test our theories against real world issues: what do they tell us the government should do about factory farming, organic food, wilderness restoration, environmental racism, climate change, or anything else?
GPA units: 1
Common Area: Philosophical Studies
Typically Offered: Alternate Years

PHIL 249 — Environmental Ethics
Course count: 1
What kind of person should I be? What do I owe to others, and to myself? What, if anything, do I owe to non-human others animals, nature, the environment and what kind of role can those things play in my own moral development? This class will study three different sets of answers to those questions, as represented in the traditions of Utilitarianism, Kantian Ethics, and Virtue Ethics. Each of these theories begins as anthropocentric (human-centered), but we will introduce sentiocentric, biocentric, and ecocentric commitments and see which theories can accommodate those expanded concerns. We will repeatedly test our theories, in both original and modified forms, against real world issues: what do they tell us to do about factory farming, meat consumption, animal use in medical testing, wilderness restoration, climate change, or anything else?
GPA units: 1
Common Area: Philosophical Studies
Typically Offered: Alternate Years

POL 257 — Politics Of Development
Course count: 1
How can the world’s less developed countries achieve sustainable development (in environmental, economic, and political terms)? This course discusses structural and institutional challenges to sustainable development in the global South, investigates different responses to these challenges (and their different degrees of success), and assesses the impact of development—and underdevelopment—on both societies and the environment. Comparative Politics.
GPA units: 1
Common Area: Social Science
Typically Offered: Annually
POLS 259 — Nat Res Conflicts in Latin Am Course count: 1
The course will investigate the nature of conflicts over natural resources in Latin America, their causes, and the position of the many stakeholders involved in them. It will also evaluate the diverse governance schemes that have been either proposed or implemented to solve such conflicts. The course will pay particular attention to the struggles of Latin American grassroots groups and social movements – indigenous peoples, landless peasants, and fishing folk, among others – for access to natural resources and environmental goods. Not all Latin American citizens have enjoyed unimpeded access to natural resources, whether such resources are common (as in public forests, oil and gas reserves, or clean air), formally owned by them, or located on their land. This reality which has historical roots persists today and may be aggravated in the future, despite the formal adoption of liberal democracy and the rule of law in most countries in the region. Acute economic and political power disparities among groups competing for natural resources contribute to create a permissive climate for systematic violations of environmental, social and cultural rights associated with such resources. Violations lead to new conflicts and aggravate old ones. Comparative politics.

GPA units: 1
Common Area: Social Science
Typically Offered: Alternate Years

POLS 285 — Global Environmental Politics Course count: 1
This course analyzes the roles of national governments, international institutions, and non-state actors in managing global and cross-border environmental problems. Principal topics include the process of international environmental negotiation, the nature of existing international environmental agreements, and the theoretical and practical problems involved in environmental protection and regulation at the international level. International Relations.

Prerequisite: POLS 103 or ENVS majors or minors.
GPA units: 1
Common Area: Social Science
Typically Offered: Alternate Years

RELS 255 — Ecology & Religion Course count: 1
Explores various perspectives on nature articulated in the history of the world’s religions beginning with hunter-gatherer and tribal peoples. Distinctive doctrines derived from sacred texts and by philosophers/theologians, as well as the impact of ritual practices, are reviewed to understand the impact of religion on human ecology. After considering the perspective of Enlightenment thought on the natural world, the course surveys early North American exponents of ecological spirituality (Thoreau; Emerson; Muir), the writings of Eco-theologians (Fox; Berry; Schweitzer; McFague), and how cosmologies articulated by modern ecologists (Leopold; Lovelock) and activists (Earth First! And Greenpeace) have sought to define as sacred the human connection with the natural world.

GPA units: 1
Common Area: Cross-Cultural Studies, Studies in Religion
Typically Offered: Alternate Years

RELS 260 — Comparative Mysticism & Human Ecology Course count: 1
A phenomenological analysis of mystical experience, both theory and practice, and an investigation of the epistemological and ontological status of this experience. Approach is pluralistic considering mysticism from the following perspectives: psychological, religious, anthropological, philosophical and scientific. Examines various conceptions of ultimate reality and a variety of practices constituting the mystic path or way. Mystical experience is broadly conceived as a state of consciousness whose dominant symbols and structures of thought, behavior and expression relate to the ultimate transformation of self and world.

GPA units: 1
Common Area: Cross-Cultural Studies, Studies in Religion
Typically Offered: Fall

RELS 340 — Gardens & World Religions Course count: 1
A survey of the historical and cultural backgrounds of the major garden traditions of the world associated with religions. This course moves from considerations of human aesthetic and spiritual experience in the natural world to a survey of the major garden traditions associated with the western Mediterranean and Europe: in classical Greece and Rome, Christianity, and Islam. The course then moves to East Asia and classical traditions of China and Japan. Special focus will be given to elements of the campus Japanese Garden Initiative: teahouse gardens and monastic viewing gardens. Field trips to regional gardens will be made. For the final project, students design small virtual contemplative gardens for possible construction at specific campus sites.

Prerequisite: One previous course in Religion, Asian Studies or Middle East Studies
GPA units: 1
Common Area: Cross-Cultural Studies, Studies in Religion
Typically Offered: Alternate Years

SOCL 210 — Consumer & Corp Sustainability Course count: 1
This course asks what it means to be a good citizen, good consumer, and good corporate citizen in light of contemporary social and environmental problems by focusing on the relationship between democracy and capitalism. It investigates the complexities of understanding and implementing social responsibility on the local, national, and global level.

Prerequisite: SOCL 101
GPA units: 1
Common Area: Social Science
Typically Offered: Alternate Years

SOCL 236 — Environmental Sociology Course count: 1
This course examines the interaction between human society and the natural environment, more specifically, the relationships between various environmental and social problems, as well as emphasizes current theory and research in environmental sociology aimed at understanding and addressing those problems. By discussing issues of science and technology, popular culture, disasters, urbanization, racial and gender relations, domination and violence, as well as social movements, and by engaging in issues from a diversity of disciplines including anthropology, biology, economics, geography, psychology, and history, this course will reach a broad understanding of environmental issues. One unit.

GPA units: 1
Common Area: Social Science
SOCL 238 — Cities and Environment  Course count: 1
GPA units: 1
Common Area: Social Science

STAT 220 — Statistics  Course count: 1
This course presents statistics intended for students aspiring to the health professions. Topics include sampling strategies and experimental design, numerical and graphical methods of describing data, basic concepts in probability, discrete and continuous probability distributions, sampling distributions, confidence intervals, hypothesis testing and simple linear regression. Statistics is a part of the health professions curriculum, but some majors at the College offer their own statistics courses that are tailored to their respective disciplines. Students majoring in mathematics, economics, biology, psychology and sociology should take the statistics course within their major. Health profession students are advised to wait and take the statistics course in their major, or else should take STAT 220 sometime after their first year at the College.

Prerequisite: MATH133, 134, 135, or 136 or equivalent. Students who have taken ECON 249, BIOL 275, PSYC 200 or Social Statistics or have credit for AP Statistics may not enroll in this course. ACCT, ECON, PSYC or SOCL majors may not enroll in STAT 220.
GPA units: 1
Typically Offered: Fall, Spring

VAHI 250 — Making the Modern City  Course count: 1
This lecture course probes the catalysts and implements of urban change around the globe since the Industrial Revolution. Using case studies of major cities, the course will explore how local political, socio-economic, and technical shifts wrought physical changes at the scale of the city. Our scope includes those figures who were agents of, and targets of, urban change; as well as the layers of water, sewer, electric, and transportation infrastructure that empower modern metropolises. We will also explore polarities of public vs. private and city vs. country. The course engages local examples, and when possible, includes a CBL component.

GPA units: 1
Typically Offered: Annually

VAHI 330 — Designing Green  Course count: 1
Green, in color and concept, is a word that has meant many different things to different societies over the centuries. This course will explore the notion of "green" across time and space, focused on the application of this term to the natural and built environment, and mankind's relationship to them. Topics will include color theory, gardens as placemaking tools in varying religious and cultural contexts, the protection and commodification of natural landscapes as public parks, the abundance and loss of trees, the history of "the lawn," the birth of modern environmentalism, and recent narratives about sustainable design of products, architecture, and landscapes.

Enrollment limited to 3rd and 4th year students only
GPA units: 1
Common Area: Arts

VAHI 340 — American Landscapes  Course count: 1
After studying the origins of landscape imagery, this course considers how landscape art was transformed in American culture. Topics include 19th century paintings of the Hudson River school, photographs and paintings of the American west, and the use of landscape motifs by contemporary environmental artists. We will engage in three main activities: 1) reading and discussing scholarly analyses of the history of landscape painting, nature writing and theories of/about the land; 2) working with a range of primary sources, including materials in local archives and museums; 3) trying our hand at creating new accounts of the landscapes around us.

GPA units: 1
Common Area: Arts

VAST 206 — Drawn to Nature  Course count: 1
GPA units: 1