KEY:

CLASS IS BASED ON SUSTAINABILITY

CLASS INCORPORATES SUSTAINABILITY

**Anthropology:**

**101 Becoming Human: An Introduction to Anthropology**

An introduction to foundational approaches in anthropology with an emphasis on understanding the human condition in broad historical, material, and cross-cultural contexts. Drawing on key ideas such as evolution, adaptation, and environmental change, case studies will explore the interplay between material and biological factors and particular social conditions for producing diverse ways of life. Open to first-year students and sophomores; juniors and seniors by consent only.

**259 Culture, Environment and Development in the Andes**

This course focuses on the intersection of two major concerns in global development—environmental sustainability and the self-determination of indigenous communities—as they play out in the Andes region of South America. Environmentally, this mountainous region is home to astounding biotic and geomorphological diversity and concentrations of major watersheds, glaciers, and complex forests. Culturally and politically, the Andes region also stands out as a locus of Latin America’s indigenous rights movement. This course asks a series of questions centered on understanding environmental issues and movements from the perspective of indigenous peoples, including: How are pressing environmental changes altering indigenous livelihoods and how are indigenous groups responding to these challenges? How do indigenous movement politics rooted in struggles for sovereignty and legal recognition intersect with global environmental concerns and social movements to address climate change, water resources, and biodiversity? How do approaches to development that take seriously nature-culture connections address issues of indigenous livelihoods and sustainability and in what ways do they fail? Readings will draw from anthropology, geography, global health, political theory, journalism, and history.

**300 Malignant Cultures: Anthropologies of Cancer**

Cancer – the uncontrolled growth of abnormal cells in the body – is the cause of nearly 13 percent of all deaths annually. (Over 12 million cancers are diagnosed each year with a corresponding 8 million deaths.) Because of its often unknown direct causes, and its association with suffering and the disfigurement of the human body, cancer is frequently described as a “dreaded” disease, the name itself serving as a metaphor for unchecked disorder and chaos. This course, blending a reading seminar with community-based research, will explore a variety of sociocultural dimensions of cancer, from the epidemiology and demographics of the disease, with a particular focus on how cancer maps on to social inequalities including race and ethnicity, to its cultural history – its rich metaphors, symbols and social connotations. Readings will explore cancer in the US as well as its rising incidence in the developing world. Drawing from medical anthropology, course themes will explore both the possibilities and limitations of an ethnographic approach to mine cancer’s meanings, with special attention placed on the perspective of sufferers and the sociocultural contexts in which the disease occurs. In the community-based research portion of the class, students will carry out their own ethnographic research and/or service learning projects among different cancer communities in the Inland Northwest. Students will have the opportunity to explore issues such as survivorship, the intersection of cancer with poverty, race, ethnicity and gender/sexuality, cultural aspects of treatment, environmental justice, support groups and advocacy, and health activism.

**306 Culture, Politics, Ecology**

This seminar examines a range of approaches to the analysis of ecological and social processes, drawing on interpretations of different socio-ecological studies in anthropology and geography. Covers cultural ecology and political ecology. Topics include human/environment relations through the lens of gender, race, class, livelihoods, the topic of nature and nature conservation, local knowledge, resistance and resilience, environmental discourses, social movements and the connections between production and consumption. Students will gain an understanding of how hierarchies, privilege, status and power shape patterns of natural resource use; who and what causes environmental problems; and what the solutions might be. May be elected as Environmental Studies 306 but must be elected as Environmental Studies 259 to satisfy the interdisciplinary course requirement in environmental studies.

**313 Communism, Socialism, and the Environment**

In an age where many associate climate change and environmental destruction with capitalism, what can we learn from the history, ideology and practice of socialism and communism? Was communism uniformly destructive to the environment, marked by catastrophes like the Chernobyl meltdown or the nightmarish geoengineering of Three Gorges Dam in China? What are the unexpected environmental surprises or sustainable aspects of the communist experiment, inadvertent as well as purposeful? This course provides both political theory and case studies to examine what was state socialism, the Communist Party, the experience of living in a Communist country. The course will draw on materials from environmental history, post-socialist anthropology and political ecology to explore the lived realities and utopian projects of communism and socialism. Course draws examples from around the world, including eastern Europe, China, Vietnam, Cuba, Brazil and Tanzania.

**360 The Cultural Politics of Science**

An upper-level introduction to the widening field known as science and technology studies (STS). Interdisciplinary in scope, this course primarily draws on ethnographic attempts to understand how science and technology shape human lives and livelihoods and how society and culture, in turn, shape the development of science and technology. Throughout the course we will be particularly concerned with ways that scientific visions and projects, broad in scope, articulate, mirror, distort, and shape hierarchies based on such categories as gender, race, class, development, definitions of citizenship, understandings of nature, the production of knowledge, and global capitalism. Topics may include race-based pharmaceuticals, climate debates and “natural” disasters, genomics, politicized archaeology, science in postcolonial contexts, DNA fingerprinting, clinical trials, cyborgs, nuclear weapons production, and human/nonhuman relationships.

**Art History and Visual Culture Studies:**

**226 Landscape and Cityscape in Ancient Rome**

Despite Rome being one of the greatest cities in the ancient world, its identity was fundamentally rooted in its natural landscape. In this course we will explore how the realms of urban, rural, and wild were articulated in Roman culture, conceptually and materially. We will investigate both how the Romans conceived of the relationship between the built environment of urban space and the natural environment that supported and surrounded it and how they dealt with the real ecological problems of urban life. Central to our study will be an examination of the ways in which the rural and the wild were simultaneously the “other” and a fundamental aspect of Roman self-identity and memory.

**351 Los Angeles: Art, Architecture, Cultural Geography**

This seminar will study the emergence of Los Angeles as a center for cultural production since 1945. It will assess the relationship between urban space and the visual arts — including painting, photography, architecture, film, and video. And it will investigate the role of representation in shaping the social topography of the city. This course will ultimately seek to answer a series of questions: How has Los Angeles established itself as one of the most important global art centers? How do the city’s history and landscape create the conditions for certain artistic movements and styles? And how do Los Angeles’ ethnically and economically diverse communities use the arts to address issues of social justice and marginality?

**Biology**

**112 The Biological World**

A survey of the major groups of prokaryotic and eukaryotic organisms. The evolutionary history of living organisms is traced from the most simple prokaryotes to the highly complex plants and animals. Parallel trends and adaptations are discussed in addition to the unique features of each group. Laboratories consist of the examination of the structure and characteristics of the major groups.

**115 Natural History and Ecology**

This course emphasizes applying basic ecological and evolutionary principles to inferring processes responsible for

biological patterns students observe in the field. The core of the class is weekly trips in the region between the Columbia River and the Blue Mountains. On these trips students gain familiarity with common plants and animals of the region as part of the process of developing and applying skills observing biological patterns. Students learn to interpret these patterns in light of biological concepts learned in class. Two one-hour lectures and one five-hour field trip per week. Designed for nonscience majors with special applicability for environmental studies majors

**122 Plant Biology**

This course provides a basic introduction to the biology of plants, and is designed for non-biology majors. It examines plant structure, physiology, reproduction, and ecology, including evolutionary adaptations to different environments.

**125 Genes and Genetic Engineering**

Designed for non-science majors. An introduction to principles of genetics related to medicine, agriculture and

biotechnology. The class will focus on selected genetics-related topics of current social, environmental or economic

importance, and will include student-led investigations into benefits and controversies of those topics and related

applications.

**127 Nutrition**

The required nutrients and their food sources, their metabolism, and eventual functions and fates in the body will be

discussed. Principles applied to specific life stages and circumstances. Current topics in nutrition will be addressed,

including eating disorders, global nutrition issues, world hunger, food additives, supplements, pesticide use, factors leading to chronic disease, etc. Students will read current articles and develop analytical skills which enable them to make informed decisions regarding food choices.

**130 Conservation Biology**

An introduction to the dynamic and interdisciplinary world of biological conservation. Fundamental principles from

genetics, evolution, and ecology will be discussed and then applied to problems including extinction, species preservation, habitat restoration, refuge design and management, and human population growth and its myriad impacts on our environment.

**172 ST: Genetically Engineered Animals for Human Use**

This seminar course intended for non-majors will examine the role of genetically engineered animals for human use. Topics will include current and historical methods of generating GE animals, the specific purpose (improved production properties, decreased pollution, disease resistance, bioreactors, xenotransplantation, medical models), ethical considerations, and federal regulation and labeling. The goal of this course is to engage students in a discussion of the science behind genetic engineering, and the value it could provide to different populations in developed and developing countries. This seminar will also examine the impact of the anti-GMO movement, and discuss the wider socioeconomic impacts of using, or withholding, GE animals. Students are expected to read a selection of scientific review articles and popular news articles, participate in weekly discussions, and complete a written assignment.

**177 Ecology of the American West**

This course will explore the adaptations and relationships of organisms to their abiotic and biotic environments, with focus on the varied ecosystems of the Hells Canyon region of northeastern Oregon and the high desert ecosystems of northern New Mexico. Students will come to understand the forces impacting, and the impact of, individual organisms as they exist over time and space, as parts of higher levels of ecological constructs including the population, community, and ecosystem. A significant proportion of the class will be spent in the field quantifying vegetative associations and a selection of the fauna inhabiting those associations. The course is team-taught sequentially over two intensive, two-week periods. Laboratory sessions consist primarily of fauna and flora identification, ecological monitoring techniques including vegetative plot monitoring, dry pitfall monitoring, and avian transect monitoring.

**178 Fundamentals of Marine Biology**

An examination of life in the oceans, from the intertidal to the deep sea, with emphases on adaptations of organisms to major habitat factors and current environmental crises.

**212 Natural History of the Inland Northwest**

This course will engage biology majors with the plants, animals, and topography of a specific biotic province of our region (e.g., Blue Mountains or Walla Walla Valley) within the larger context of its geology and paleoecological history. The class will emphasize field experiences and interpretation of ecological and evolutionary processes shaping our surroundings with discussion of current environmental issues facing the area.

**215 Plant Ecology**

This course covers the diverse adaptations of plants to their abiotic and biotic environments from ecological and

evolutionary perspectives. Lectures will address effects of climatic factors (water, light, temperature) and soils on plantmorphology, physiology, growth, and reproduction, and the complex relationships of plants with other forms of life,especially insects. Three hours of lecture per week, plus one field trip during the semester.

**272 ST: Astrobiology: The Search for Alien Life**

Is life on Earth all there is? Is there life elsewhere in the solar system or beyond, on planets orbiting distant stars? These are fundamental questions of the human condition, but a growing knowledge of environmental conditions on other planets, the discovery of thousands of planets in other star systems and a deeper (literally in some cases) understanding of life under extreme conditions here on Earth allow us to explore them on multiple levels. This course will focus on the cell biology, ecology and evolution of extremophiles on Earth, then take a student driven approach to focus that understanding onto other possible sites for life elsewhere in the universe. This will be a seminar style course using primary literature, established texts, student lectures and even science fiction to engage with the material.

**277 Ecology**

The relationships of organisms to one another and to the abiotic environment. We will learn ecological concepts and

principles important to populations, evolution, inter-specific interactions, communities, landscapes, energy flow, nutrient cycles, and conservation.

**278 Marine Biology**

Life in the oceans from the intertidal to the deep sea, with emphasis on anatomical, physiological, and biochemical

adaptions of organisms to major environmental factors.

**288 Plants and Peoples**

The relationship between plants and human societies, drawing examples from different geographical regions and placing emphasis on plants used for food, medicine, clothing, and shelter. Topics will explore the various uses of plants, implications of altering natural habitats and cultural traditions, origins and histories of cultivated plants, development of agriculture and ecological aspects of its practices, including soil management, pest control, plant breeding, and preservation of genetic diversity.

**353 Plant Physiology**

Plant physiology is the study of how plants function, internally as well as in relation to their environment. We will

investigate how plants use light, water, and minerals to grow and reproduce, at both whole-plant and molecular levels. How do plants cope with stressful environments? How do they adapt to strange or extreme environments? How can a better understanding of plant physiology improve our ability to deal with social issues such as famine, malnutrition, and the conservation of biodiversity? Through lecture, written exercises, discussions of research articles, and laboratories, we will consider these and other key aspects of plant physiology

**Chemistry**

**100 Introduction to Environmental Chemistry and Science**

The goal of this course is to prepare students to be environmentally responsible citizens and empower them with scientific knowledge to make the right decisions concerning the environment. Chemistry 100 is a one-semester introduction to important topics in the environmental sciences. Emphasis will be placed on historic environmental success and what major problems remain to be solved. Topics will include the availability of clean water, effective wastewater treatment, restoration of the stratospheric ozone layer, the removal of anthropogenic produced lead, past and current endocrine disruptors, the proper use of risk assessment, appropriate actions to combat human-caused global warming, and an effective environmental legal national and international framework. Emphasis will be placed on the chemistry of each topic.

**126 General Chemistry**

The second semester of a yearlong course in introductory chemistry. Topics include properties of solutions, elementary thermodynamics, introduction to chemical equilibrium, kinetics, oxidation-reduction and electrochemistry, acids and bases, environmental issues, and nuclear chemistry. Problem-solving in this course involves the use of logarithms and algebra

including the quadratic formula.

**388 Environmental Chemistry and Engineering**

This course will examine (1) the basic chemistry associated with pollutant fate and transport modeling in environmental media, especially acid-base, oxidation/reduction, solubility, speciation, and sorption reactions, (2) basic physical concepts for modeling the fate and transport of pollutants in environmental media, and (3) pollutant risk assessment based on humans as receptors. Additional topics might include major U.S. environmental laws, global environmental issues (e.g., global warming and stratospheric ozone depletion), and selected scientific articles. The laboratory portion will concentrate on pollutant monitoring and chemical aspects of pollutants, measuring dispersion and pollutant transport in small-scale systems, and data analysis.

**Classics**

**217 Classical Foundations of the Nature Writing Tradition**

The Western nature writing tradition is deeply rooted in models from classical antiquity. In order to appreciate more fully the tradition we will explore the relationship between ancient literature and the natural environment. In our literary analysis of ancient works, we will examine approaches to natural description in several literary genres, which may include the poetic genres of epic, lyric, pastoral, and elegiac, as well as the prose genres of ethnographic history, natural history and travel writing.

**226 Concepts of Nature in Greek and Roman Thought**

The Greek term “physis” and the Latin word “natura” refer to what has come to be, as well as to the process of coming intobeing. This course will consider a broad range of texts which develop important concepts of Nature. Philosophic texts may include the pre-Socratics, Aristotle, the Stoics, and Lucretius. Literary texts may include Theocritus, Virgil, and the early modern European pastoral tradition. In addition, we will encounter other texts in various genres that contribute some of the ideas which inform the complex and changing concepts of Nature.

**309 Women and Nature in the Ancient World**

As mothers, witches, nymphs, and virgin-huntresses of the wild, women in the ancient world were depicted in roles that denoted a special relationship with nature. Likewise, the natural world was articulated through gendered imagery. In thiscourse we will explore the association of gender and nature in the ancient Greco-Roman world. We will give particularfocus to the status of women as intermediaries to nature. We will examine a range of representations of the feminine in literature and art, as well as in ritual and social practice, studying the female role in negotiating society’s interactions with nature.

**319 Landscape and Cityscape in Ancient Rome**

Despite Rome being one of the greatest cities in the ancient world, its identity was fundamentally rooted in its natural landscape. In this course we will explore how the realms of urban, rural, and wild were articulated in Roman culture, conceptually and materially. We will investigate both how the Romans conceived of the relationship between the built environment of urban space and the natural environment that supported and surrounded it and how they dealt with the real ecological problems of urban life.

**Economics**

**100 Principles of Microeconomics and the Environment**

This course provides the same coverage of topics as Economics 101*,* but special emphasis is placed on applying concepts to environmental and natural resource issues. Thus, the focus of this course is principles of microeconomics with applications to environmental and natural resource issues; this course is not about the economics of environmental and natural resource issues. Students pursuing an environmental studies combined major and others interested in the environment are encouraged to take this course.

**101 Principles of Microeconomics**

This course and Economics 100 both introduce the standard economic theory of the behavior of firms, households and other agents, and the operation of markets. Topics include the production, distribution, and pricing of goods and services in product markets and input markets, and government intervention in markets. The course will emphasize applications to enable students to analyze contemporary economic society.

**215 Behavioral Economics**

This course explores the ways individuals systematically deviate from rational economic behavior. Evidence of irrational behavior will be presented in the context of other topics in economics - such as health economics, development economics, and financial economics - with the objective of improving our understanding of decision-making in a variety of settings. There will be discussion regarding the role and capacity of public policy to improve decisions, such as how to share and frame information.

**220 Game Theory**

Game theory is the study of strategic decisions made by mutually interdependent individuals. This course emphasizes the roles that information and reputation play in determining strategic outcomes. Applications include patents, cartels, hostile takeovers, labor strikes, predatory pricing, common property problems, central bank credibility, involuntary unemployment, free-rider problems, and voting paradoxes.

**258 Global Political Economy**

This course will survey the emergence and evolution of the ‘world economy’ and how that history continues to shape contemporary global dynamics. Drawing upon a range of theoretical perspectives, we will examine structural features of the contemporary global political economy and new and enduring forms of inequality at multiple levels. The course will encourage critical analyses to more adequately understand deepening inequalities between and within economies, and the global insecurities these entail.

**268 Government and the Economy**

This course examines some ways in which the government intervenes in the economic system. One half of the course will focus on antitrust by studying some important court cases. The other half of the course will explore regulation of particular sectors of the economy which may include electricity, energy, communications, transportation, health care, environmental quality, and worker and product safety.

**277 Global Environmental and Resource Issues**

This course applies the tools of economic analysis to global environmental and natural resource issues such as global

pollution, the relationship of trade and the environment, sustainable economic growth and resource scarcity, economic growth and the environment, and natural resource conflicts

**477 Environmental and Natural Resource Economics**

The first portion of this seminar deals with environmental economics and establishes a framework with which to view environmental problems. Topics covered include the theory of externalities and the features of different remedies, the evaluation of environmental amenities, and a survey of current environmental policies. The second portion of the course deals with natural resource economics and considers the use of renewable and nonrenewable resources over time.

**478 Urban Economics**

A study of the economic framework of urban areas. Economic interrelationships between the urban core and the

metropolitan area will be examined, including problems of location, land use, the distribution of population and industry, transportation, finance, housing, race, and poverty

**479 Economic Geography**

The study of locational, organizational, and behavioral principles and processes associated with the spatial allocation of scarce resources, and the spatial patterns and (direct, indirect, economic, social, and environmental) consequences resulting from such allocations.

**English**

**348 VT: The American Literary Emergence, 1620 - 1920**

Beginning with the pre-Revolutionary texts by those newly arrived to the Atlantic Coast colonies, and including the

writings of those already present on the continent, we will study how an “American” literature came into being. As the population boomed and expansion moved westward, the newly formed United States became a national entity and global presence. We will study the development of American individualism, the rise of genres such as the captivity narrative and the slave narrative, and major literary movements such as the shift to realism and naturalism.

**Environmental Studies**

**120 Introduction to Environmental Studies**

An introduction to interdisciplinary themes in environmental studies, including perspectives from the sciences, social sciences, and humanities. Emphasis is placed on understanding local and regional environmental problems as well as issues of global environmental concern. Students enrolling in this course also will be required to enroll in Environmental Studies

**200 Special Topics: Introductory Environmental Social Sciences**

An introductory course designed to investigate environmentally significant topics in the social sciences.

**201 Special Topics: Introductory Environmental Sciences**

An introductory course designed to investigate environmentally significant topics in the sciences.

**202 Special Topics: Introductory Environmental Humanities**

An introductory course designed to investigate environmentally significant topics in the humanities.

**202 ST: Religion, Nature, and Ecology**

What is “nature”? What is “wilderness”? Where do these ideas come from and what are the politics involved? How arethese ideas shaped or inflected by rhetorics or ideologies marked as “religious”? (And what is “religion”?) This class will trace genealogies for these categories, noting intersections, and will discuss their historical legacies and relevance to us today in a world marked by ecological crises and often intense (and religious) debates on subjects such as land use, climate change, extractive industries, sustainability, etc. The course will consider how rhetorics of religion are deployed in ecological movements and texts, in Indigenous communities, in so-called “nature sports,” in nature writing, in anti-environmental movements and interests, and in what Religious Studies scholar Bron Taylor has called “deep green religion.”

**203 Special Topics: Interdisciplinary Studies**

An introductory course designed to investigate environmentally significant topics from an interdisciplinary perspective.

**207 Methods of Environmental Analysis**

An introduction to analytic methods and tools utilized to address environmental issues and problems. Building on a basic understanding of elementary concepts in statistics (variables, descriptive and inferential statistics, confidence intervals, hypothesis testing, effect sizes, etc.), students will learn to read, interpret, and critically evaluate environmental data and literature. Additionally, students will become familiar with environmental analysis procedures and surveys such as environmental assessment (Environmental Impact Statements); environmental risk assessment; land, soil, water, wildlife, agricultural, and mineral surveys. Lastly, given the inherent spatial nature of environmental data, students will utilize Geographic Information Systems software to assess spatial relationships between variables.

**217 Classical Foundations of the Nature Writing Tradition**

The Western nature writing tradition is deeply rooted in models from classical antiquity. In order to appreciate more fully the tradition we will explore the relationship between ancient literature and the natural environment. In our literary analysis of ancient works, we will examine approaches to natural description in several literary genres, which may include the poetic genres of epic, lyric, pastoral, and elegiac, as well as the prose genres of ethnographic history, natural history, and travel writing.

**226 Concepts of Nature in Greek and Roman Thought**

The Greek term “physis” and the Latin word “natura” refer to what has come to be, as well as to the process of coming into being. This course will consider a broad range of texts which develop important concepts of Nature.

**230 The Cultural and Literary Life of Rivers**

Sources of life-giving water, protectors of borders, images of change and oneness, rivers hold deep symbolic and cultural significance. In this course we will explore the life of the river in the mythological, religious and literary traditions of several ancient and modern cultures. Using comparative approaches we will examine the meaning and value major rivers hold for the people that live around them and their role in shaping cultural identity and religious practice. We will also read several major literary works that make rivers a central aspect of their narrative and will consider how the author writes about the river and its landscape in order to explore wider issues of the human experience.

**235 The Pastoral, the Wild, and the Commons**

As Aldo Leopold plainly stated in *A Sand County Almanac*, Western societies, from antiquity to the present, have grappled with human-land relations. Recently, the American conservation and environmental movements have intensified these struggles in various efforts to designate public lands, conserve green space, protect family agriculture, and preserve wilderness, wildlife and scenic areas. In this course, we will examine various texts that bring life to life three concepts that lie at the foundations of most conservationist and preservationist action: the pastoral, the wild, and the commons.

**259 Culture, Environment and Development in the Andes**

This course focuses on the intersection of two major concerns in global development—environmental sustainability and the self-determination of indigenous communities—as they play out in the Andes region of South America. Environmentally, this mountainous region is home to astounding biotic and geomorphological diversity and concentrations of major watersheds, glaciers, and complex forests. Culturally and politically, the Andes region also stands out as a locus of Latin America’s indigenous rights movement. This course asks a series of questions centered on understanding environmental issues and movements from the perspective of indigenous peoples

**260 VT: Geology in the Field: Mojave Desert**

Course will introduce students to the world-class geology and ecology of the Mojave Desert. The class will also explore the unique environmental issues of the Mojave including water resource management, alternative energy, nuclear waste, and anthropogenic impacts to ecosystems.

**300 Special Topics: Environmental Social Sciences**

An upper level course designed to investigate environmentally significant topics in the social sciences.

**301 Special Topics: Environmental Sciences**

An upper level course designed to investigate environmentally significant topics in the sciences.

**302 Special Topics: Environmental Humanities**

An upper level course designed to investigate environmentally significant topics in the humanities.

**303 Special Topics: Interdisciplinary Studies**

An upper level course designed to investigate environmentally significant topics from an interdisciplinary perspective.

**306 Culture, Politics, Ecology**

This seminar examines a range of approaches to the analysis of ecological and social processes, drawing on interpretations of different socio-ecological studies in anthropology and geography. Covers cultural ecology and political ecology. Topics include human/environment relations through the lens of gender, race, class, livelihoods, the topic of nature and nature conservation, local knowledge, resistance and resilience, environmental discourses, social movements and the connections between production and consumption. Students will gain an understanding of how hierarchies, privilege, status and power shape patterns of natural resource use; who and what causes environmental problems; and what the solutions might be.

**308 (Re)Thinking Environment**

Pairing post-nature, abstract, and non-traditional theories of space and place with pieces of literature that push the

boundaries of our understanding of environment, this advanced course encourages students to reconsider environment beyond the natural. The course will engage at a high level with post-natural, toxic, post-industrial and gendered environments alongside a variety of human habitats including the urban, domestic, and transient.

**329 Environmental Health**

Environmental health issues are inherently interdisciplinary. This seminar-style course will examine how the natural, built, and social environments impact human and environmental health outcomes. The course will draw on research articles, theoretical discussions, and empirical examples from fields including toxicology, exposure science, environmental chemistry, epidemiology, sociology, history, policy studies, and fiction. Particular attention will be paid to the use of science to develop regulation, the role of social movements in identifying environmental health problems, and inequalities associated with environmental exposures. This course will be reading, discussion, and writing intensive.

**335 Romantic Nature**

Why does nature inspire us? Where did our understanding of nature come from? We have inherited our interactions with nature from a variety of sources: The Enlightenment was marked by political, intellectual, and scientific revolution and attempted to explain the world through science. The Romantics, on the other hand, reacted by trying to restore some mystery to Nature and to acknowledge its sublime power. This Nature ideal spread throughout Europe and then on to America, where European Romanticism inspired writers like Emerson, Thoreau, Whitman, and their contemporaries’ nature writing, which continues to exert influence on the American understanding of the natural world. This course will look at where American Transcendentalists and Romantics found inspiration. Students will read key literary and philosophical texts of the Romantic period, focusing on Germany, England, and America and explore echoes of these movements in the twentieth and twenty-first centuries: How do the Romantics continue to influence the discourse of environmentalism in America and around the world? Is the Romantic impulse at work in the establishment of the national parks system? Can we see echoes of the Romantic Nature ideal in narratives of toxic, post-industrial landscapes?

**339 Writing Environmental Disasters**

From natural disasters (earthquakes, floods, storms) to man-made ecological catastrophe (nuclear accidents, oil spills, the thinning ozone layer), environmental disaster inspires fear, rage, and action. This course will focus on fiction and nonfiction that meditates on these events and our reactions to them. We will examine the ways in which literature and the other arts depict disaster, how natural disaster descriptions differ from those of man-made environmental crisis, whether humans can coexist peacefully with nature or are continually pitted against it, and how literature’s depiction of nature changes with the advent of the toxic, post-industrial environment. Authors discussed may include Kleist, Goethe, Atwood, Ozeki, Carson, Sebald, and others.

**340 Environmental Radicals in Literature**

Much contemporary environmental thought provides a radical critique of industrial and postindustrial society, but in earlier times the first true environmental thinkers challenged systems of agriculture, market economics, land ownership, and urbanism. What was once radical moved toward the center. In this course, students will examine the radical tradition of environmental thought as it has been expressed in literary and other texts. Bioregionalism, ecofeminism, agrarian communalism, Luddism, Deep Ecology, eco-centrism, and other radical environmental expressions will be examined critically. Works by Hawthorne, Thoreau, Ed Abbey, Kirk Sale, Gary Snyder, Susan Griffin, Paul Shepard, David Abram,and others may be included.

**347 The Nature Essay**

The class will be conducted as a nonfiction prose writing workshop in which students read and comment on each other’s writing. After examining published works chosen as models, students will write essays in the nature-writing tradition, selecting approaches from a broad menu. Nature-writing includes literary natural history; “science translation writing”; essays on current environmental issues; personal essays based on engagement with land, water, wildlife, wilderness; travel or excursion writing with a focus on nature; “the ramble”; and other approaches. Students will learn how contemporary nature-writers combine elements of fiction, scientific descriptions, personal experience, reporting, and exposition into

**349 Regional Literatures of Place: The West and the South**

The literatures of both the American West and the American South often reflect political struggles. Issues of federalism and states’ rights, economic dependency on the land, the rapid and radical transformation of an indigenous economy and ecology, and the stain of history stand in the foreground. This seminar will examine literary regionalism by focusing on southern and western writers whose works emanate from and reinforce the ethic and spirit of place. Several of the “Southern Agrarians” may be included along with William Faulkner, Eudora Welty and Flannery O’Connor. Western writers may include Bernard DeVoto, Wallace Stegner, Cormac McCarthy, and James Welch. In addition, films may be used to illustrate the peculiar burden of the contemporary western writer.

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**353 Environmental Justice**

How are environmental problems experienced differently according to race, gender, class and nationality? What do we learn about the meaning of gender, race, class, and nationality by studying the patterns of environmental exposure of different groups? Environmental justice is one of the most important and active sites of environmental scholarship and activism in our country today. This course integrates perspectives and questions from sciences, humanities, and social sciences through the examination of a series of case studies of environmental injustice in the United States and worldwide. Biology and chemistry figure centrally in links between environmental contaminants and human health. Systematic inequalities in exposure and access to resources and decision making raise moral and ethical questions. Legal and policy lessons emerge as we examine the mechanisms social actors employ in contesting their circumstances. This course will be reading, discussion, and research intensive.

**362 The Cultural Politics of Science**

An upper-level introduction to the widening field known as science and technology studies (STS). Interdisciplinary in scope, this course primarily draws on ethnographic attempts to understand how science and technology shape human lives and livelihoods and how society and culture, in turn, shape the development of science and technology. Throughout the course we will be particularly concerned with ways that scientific visions and projects, broad in scope, articulate, mirror, distort, and shape hierarchies based on such categories as gender, race, class, development, definitions of citizenship, understandings of nature, the production of knowledge, and global capitalism. Topics may include race-based pharmaceuticals, climate debates and “natural” disasters, genomics, politicized archaeology, science in postcolonial contexts, DNA fingerprinting, clinical trials, cyborgs, nuclear weapons production, and human/nonhuman relationships.

**365 Other Earths: Environmental Change and Speculative Fiction**

As scientists in the recently-christened Anthropocene contemplate solutions to the crises of climate change, growing energy needs, species extinction, and population growth, the language of science grows ever closer to that of science fiction. In literary and artistic representations of these crises, some find conventional, non-speculative fictions lacking, focusing primarily on the present and the past. Speculative fiction, however, provides us with a language to think about the future. This course will engage seriously with works of science fiction ranging from H. G. Wells and Kurt Vonnegut to Ursula K. Le Guin and Kim Stanley Robinson, exploring ways in which these works use the language of science and speculative futures to explore that which is most human. We will study literary representations of climate change and its possible solutions, non-humans and post-humans, future Earths and other worlds in order to understand how it is that we as humans interpret, react to, and struggle against the emergent conditions which challenge our very survival. Students will practice a variety of approaches to literary analysis. This course will also explore the role of artistic representations of the environment in shaping our understanding of the environment and of environmental crisis.

**367, 368 Special Topics**

An investigation of environmentally significant issues centered on a common theme. The course may include lectures by off-campus professionals, discussions, student presentations, and field trips.

**369 Food, Agriculture, and Society**

Why does the food system work the way it does, and how can it be changed? This advanced reading seminar draws together classic texts from political theory, geography, literature, sociology, anthropology, history, political economy, and agroecology to explore the workings of the global food system. It builds on Politics 119, but previous completion of this course is not required. May be elected as Politics 369, but must be elected as Environmental Studies 369 to satisfy the interdisciplinary course requirement in environmental studies.

**390 Independent Study**

A series of readings or a program of individual research of approved environmental topics.

**479 Environmental Citizenship and Leadership**

An intensive course in environmental problem-solving, with an emphasis on developing skills necessary for effective environmental citizenship and leadership. Students will first engage in readings and discussions to enhance their understanding of environmental decision-making processes and institutions. Then they will work individually and in teams to study active environmental disputes, with the ultimate aim of recommending formal solutions. This course is required of, and open only to, environmental studies majors in their senior year. Field trips and guest presentations may be included.

**French**

**200 French III**

A one-semester course for students at the mid- to high-intermediate level. French III reviews the structures of French I and II but in less predictable or unpredictable contexts and with greater emphasis on the successful articulation of multiple points of view. Students develop their written and oral skills in French through the critical discussion and analysis of culturally specific examples from the media, film, and literatures of the French and francophone world. Themes may include gender and society, visions of progress, media cultures, and political and environmental attitudes.

**Geology**

**125 Environmental Geology**

Natural geologic processes including Holocene deglaciation, landslides, flooding, volcanism, and earthquakes pose risksboth to human wellbeing and societal infrastructure. Human decisions for how we choose to interact with the physical environment and its resources (atmosphere, soils, energy sources, minerals) may further imperil societies or may inform global and regional mitigation of Anthropocene climate change, water quality and quantity problems, resource use, and land erosion and mass movement.

**130 Weather and Climate**

An introductory course in meteorology designed for nonscience majors with an emphasis on the weather patterns and climate of the Pacific Northwest. Topics covered include Earth’s heat budget, atmospheric stability, air masses, midlatitude cyclones, global circulation patterns and climates, and the origins of violent weather phenomenon.

**229 Geology and Ecology of Soils**

Soils provide nutrients, water and support for growing plants, host an amazing variety of organisms, and even influence global climate. This class will focus on the dynamic systems in soil and on the interactions between soils and larger ecosystem properties. Course topics will include pedogenic processes, agricultural ecosystems, the interpretation of paleosols, and the role of soils in the global biogeochemical cycling of organic carbon and nutrients.

**250 Late Cenozoic Geology and Climate Change**

The geology of the last few million years of Earth history, including glaciology, Pleistocene stratigraphy, glacial and

periglacial geomorphology, and changes in flora and fauna. What are the causes of ice ages and the alternating glaciations and interglaciations within them? What are the roles of nature and humans in the current global climate change? Research paper and field trip. *Prerequisites:* Geology 110, 120 or 125, or Environmental Studies 120; consent of instructor. Offered in alternate years.

**258 VT: Geology in the Field: Mojave Desert**

Course will introduce students to the world-class geology and ecology of the Mojave Desert. The class will also explore the unique environmental issues of the Mojave including water resource management, alternative energy, nuclear waste, and anthropogenic impacts to ecosystems. Includes 9 day field trip and camping.

**301 Hydrology**

A class devoted to understanding water resources, including both surface water and groundwater. We will study the

hydrologic cycle and the properties of water, the shape and behavior of streams, the recharge and movement of groundwater, and environmental management of water including wells, dams, irrigation, and water contaminants. Lab topics will include stream gauging and the construction of hydrographs and hyetographs, determining peak discharge, water sampling, flow nets, well tests, and computer modeling of groundwater and contaminant flow.

**German Studies**

**335 Romantic Nature**

Why does nature inspire us? Where did our understanding of nature come from? We have inherited our interactions with nature from a variety of sources: The Enlightenment was marked by political, intellectual, and scientific revolution and attempted to explain the world through science. The Romantics, on the other hand, reacted by trying to restore some mystery to Nature and to acknowledge its sublime power. This Nature ideal spread throughout Europe and then on to America, where European Romanticism inspired writers like Emerson, Thoreau, Whitman, and their contemporaries’ nature writing, which continues to exert influence on the American understanding of the natural world. This course will look at where American Transcendentalists and Romantics found inspiration. Students will read key literary and philosophical texts of the Romantic period, focusing on Germany, England, and America and explore echoes of these movements in the twentieth and twenty-first centuries: How do the Romantics continue to influence the discourse of environmentalism in America and around the world?

**339 Writing Environmental Disaster**

From natural disasters (earthquakes, floods, storms) to man-made ecological catastrophe (nuclear accidents, oil spills, the thinning ozone layer), environmental disaster inspires fear, rage, and action. This course will focus on fiction and nonfiction that meditates on these events and our reactions to them. We will examine the ways in which literature and the other arts depict disaster, how natural disaster descriptions differ from those of man-made environmental crisis, whether humans can coexist peacefully with nature or are continually pitted against it, and how literature’s depiction of nature changes with the advent of the toxic, post-industrial environment.

**History**

**205 East Asian Environmental History**

This course will examine human-environment interaction within the large, diverse area known as East Asia (approximately covering modern China, Korea and Japan). We will begin with pre-agricultural history and then focus on environmental topics within three broad time periods. The first period will cover from approximately 1000 BCE to 1300 CE, the period in which intensive rice cultivation spread through East Asia; the second period covers the early modern era, broadly defined as ~1300 CE to the mid-1800s, a period of imperial expansion outside and within East Asia; the final period covers the modern industrial era and its particular impacts on the environment.

**231 Oceans Past and Future: Introduction to Marine Environmental History**

Even though oceans cover approximately 70% of the earth's surface, environmental historians have focused most strongly on the terrestrial environment. The maritime environment influences human life in many ways, from regulating the global climate to changing or eroding the land we live on; from offering connections between far-flung areas to providing a source of food and entertainment. By examining the history of the marine environment, and the political, economic, and cultural influence of the sea, we can better understand environmental problems covering the entire globe.

**232 Changing Landscapes: Introduction to Terrestrial Environmental History**

Environmental history asks four main questions: what was the environment like in the past, how did it affect people,

how did people affect it, and what did people think about it? This course will consider the answers to these

questions by introducing major themes in environmental history. We will be looking at the ways that various

landscapes around the world have shaped human history, and also how people have shaped these landscapes to

better suit their needs and desires. Topics include the history and impact of agriculture, fire regimes, water use,

urbanization, population growth, pollution, and energy regimes. We will also discuss the importance of changing

perspectives of the terrestrial environment and the rise of environmentalism.

**262 People, Nature, Technology: Built and Natural Environments in U.S. History**

This course will focus on the ways people in North America — primarily in the area eventually claimed by the United States — have interacted with and sought to control their environments from the colonial era through the 20th century. As we explore these centuries, we will focus on a set of interrelated questions in a range of historical contexts: How have physical environments influenced human choices? How have human choices, assumptions, and cultural practices shaped physical environments? How have people at different places and times understood “nature” and their relationship to it? When do they see “nature” and when “natural resources” and when “technology,” what kinds of control have they found acceptable or problematic, and why? How and why have different Americans understood the role of government and the individual in relation to concepts of “property” or “natural resources” or the protection of “nature”?

**355 Pacific Whaling History**

From aboriginal shore-based hunts to modern factory ship whaling, the pursuit of whales has drawn people together and set them at odds with each other, particularly since the rise of the environmental movement. This seminar will look at the history of whaling throughout the Pacific Basin, from the west coast of the Americas to Japan and Australia, and all the waters in between. Using a mixture of primary and secondary sources, we will consider in particular the environmental impact of whaling in different areas of the Pacific, as well as the role of environmentalism in changing attitudes towards whaling in the twentieth century. This course is discussion-based, with paper and presentation assignments.

**Interdisciplinary Studies**

**200 ST: International Climate Negotiations, Policy and Ethics**

Starting in 1992 most countries in the world began participating in the United Nations Framework Convention on Climate Change (UNFCCC) to try to create a global agreement to address this critical global problem. After many failed attempts, the parties to the UNFCCC meeting in December 2015 succeeded in creating the historic Paris Climate Agreement. The stakes could not be much higher. At current rates of emissions, we could see atmospheric concentrations of greenhouse gases increase to levels making it practically impossible to stabilize the temperature at levels remotely close to agreed upon norms of climate safety. The consequences of rising temperatures caused by these emissions are not only modeled at this point, but have been observed: rising sea levels, droughts, impacts on food prices, increased intensity of tropical storms and possible waves of “climate refugees.” The biggest question though is whether the Paris Agreement will actually succeed in addressing these critical issues.

**Philosophy**

**120 Environmental Ethics**

Does the nonhuman world have any intrinsic value or is it valuable only because of its relation to human interests? That is, does anything besides humanity have “moral standing”? If so, what is its basis? Should we, for instance accord rights to all those creatures that are sentient? If we do, will we have gone far enough, morally speaking? What about those creatures that lack sentience? What about the environment in which all creatures, human and nonhuman, live? Does it have moral standing? In answering these questions, we will consider the works of Aldo Leopold, Peter Singer, Karen Warren, Arne Naess, and Julian Simon, among others.

**208 Ethics and Food: What’s for Dinner?**

The primary way most of us interact with both the animal world and the environment is through our choices in regards to what we will eat. How, though, should we make these choices? Is it wrong to eat meat? What is sustainable agriculture? How should we value the pleasures of food?

**227 Concepts of Nature in Modern European Philosophy**

This course explores a variety of philosophical conceptions of nature and the natural world in Modern European

philosophy, from Francis Bacon to 20th century thinkers such as Heidegger. May be applied toward the Critical Thinking requirement for the Environmental Humanities major or the Humanities Foundation requirement for Environmental Studies majors.

**Physics**

**105 Energy and the Environment**

This course examines the physical principles that govern energy transformations. It will focus on the use of energy in the world, specifically its production, transportation, consumption and the implications this use has for the environment. Topics addressed will range from the mechanical to electricity and magnetism and from thermodynamics to atomic/nuclear physics. Energy resources both new and traditional (fuel cells versus oil) will be addressed as well as environmental issues ranging from global warming to the disposal of radioactive waste.

**Politics**

**119 Whitman in the Global Food System**

This course uses food as a window through which to examine the study of politics and its connections to our everyday lives. Topics range from the geopolitics of food aid and trade to the gendered politics of export agriculture in the Third World, from the political ecology of obesity in the United States to the causes of famine in Africa. The course is designed to get students out of the classroom and into the larger community. To this end, along with standard seminar readings,discussions, and occasional lectures, the course includes short field trips and small group projects in which students trace connections between food on campus and larger global processes.

**124 Introduction to Politics and the Environment**

An introduction to key concepts in the study of politics using environmental issues as illustrations. Designed for first- and second-year students, this course encourages critical thinking and writing about such political concepts as equality, justice, freedom, liberalism, power, dissent, individualism, and community. Strong emphasis is placed on developing critical writing skills and persuasive oral arguments.

**228 Political Ecology**

This course introduces students to the interdisciplinary field of “political ecology,” a framework for thinking about

environmental politics that combines insights from geography, anthropology, history, political economy, and ecology.Through the lens of case studies from around the world, the course critically examines the origins and key contributions of political ecology, with a focus on three themes: 1) Nature-society relations, or the challenges of weaving history, economy, and power into the study of the environment (and vice versa); 2) The politics of resource access and control in diverse settings from Amazonian forests to biotech laboratories; 3) The (dis)connections between environmental movements and social justice struggles.

**287 Natural Resource Policy and Management**

This course introduces the student to basic problems in natural resource policymaking in the American West. We will focus on the legal, administrative, and political dimensions of various natural resource management problems, including forests, public rangelands, national parks, biodiversity, energy, water, and recreation. We also will explore the role of environmental ideas and nongovernmental organizations, and we will review a variety of conservation strategies, including land trusts, various incentive-based approaches, and collaborative conservation.

**309 Environment and Politics in the American West**

This course explores the political landscape of the American West, focusing on natural resource policy and management on public lands. Topics include forest, mineral, range, grassland, water, and energy policy with an emphasis on the local impacts of climate change. Required of, and open only to, students accepted to Semester in the West.

**339 Nature, Culture, Politics**

In this seminar we explore changing understandings of nature in American culture, the role of social power in constructing these understandings, and the implications these understandings have for the environmental movement. Topics discussed will include wilderness and wilderness politics, management of national parks, ecosystem management, biodiversity, place, and the political uses of nature in contemporary environmental literature.

**369 Food, Agriculture, and Society**

Why does the food system work the way it does, and how can it be changed? This advanced reading seminar draws together classic texts from political theory, geography, literature, sociology, anthropology, history, political economy, and agroecology to explore the workings of the global food system.

**Rhetoric Studies**

**255 Persuasion, Agitation, and Social Movements**

This class explores the rhetorical grounds of social interaction with an emphasis on the role of communication in both social continuity and change. The course introduces students to theories and the practice of mass persuasion, propaganda, public advocacy, and social activism. Theories are illustrated through examination of a set of case studies (e.g., civil rights campaigns, environmental politics, grass-roots social movements, and digitally networked global communities). Students evaluate and construct persuasive arguments in both formal and informal settings. By studying the phenomenon of social movements (broadly defined), we examine how collective identification is created, and how groups are motivated to act in concert, particularly in contexts where communication alone may be insufficient to alleviate injustice.

**Sociology**

**229 Environmental Sociology**

How is the environment shaped by society, and how is society shaped by the environment? Who controls access to

environmental resources, and who is impacted by environmental hazards? How is “nature” defined, and what role do

societies have in that definition? This course addresses these and other questions, and provides an overview of the central debates in environmental sociology. We will explore current environmental topics from a sociological perspective, focusing on interactions between human societies and the natural environment. At the end of the course, students will be able to describe key theories in environmental sociology, explain how environmental sociologists look at issues like technological innovation and population stresses on resources, and apply these key theories to a variety of contemporary environmental problems. The course will include lectures, in-class discussions and assignments, papers, and applied research projects and exams.

**329 Environmental Health**

Environmental health issues are inherently interdisciplinary. This seminar-style course will examine how the natural, built, and social environments impact human and environmental health outcomes. The course will draw on research articles, theoretical discussions, and empirical examples from fields including toxicology, exposure science, environmental chemistry, epidemiology, sociology, history, policy studies, and fiction. Particular attention will be paid to the use of science to develop regulation, the role of social movements in identifying environmental health problems, and inequalities associated with environmental exposures.

**349 Environmental Social Movements**

Why do social movements happen? Why do some social movements succeed in producing change while others fail? What are differences between environmental movements in the United States and other nations? How do different experiences across gender, race and class inform the emergence, goals and dynamics of environmental social movements? This course will use micro and macro sociological theory to study social change, reform and collective behavior using environmental movements and environmental backlash movements as case studies. We will bring both national and global focus to our study of collective action and social change. The course will be reading intensive. We will view and discuss films. Evaluation will be based on reading discussion, research papers and individual projects.

**353 Environmental Justice**

How are environmental problems experienced differently according to race, gender, class and nationality? What do we learn about the meaning of gender, race, class and nationality by studying the patterns of environmental exposure of different groups? Environmental justice is one of the most important and active sites of environmental scholarship and activism in our country today. This course integrates perspectives and questions from sciences, humanities and social sciences through the examination of a series of case studies of environmental injustice in the United States and worldwide. Biology and chemistry figure centrally in links between environmental contaminants and human health. Systematic inequalities in exposure and access to resources and decision making raise moral and ethical questions. Legal and policy lessons emerge as we examine the mechanisms social actors employ in contesting their circumstances. This course will be reading, discussion and research intensive.