Environmental Humanities

Major and Minor in Environmental Humanities
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Environmental Humanities (EHM)
The Environmental Humanities major, leading to a Bachelor of Arts degree, draws together a range of disciplines to explore human understanding and interpretation of nature. The curriculum integrates disciplines from social sciences and the humanities including: writing, literature, philosophy, history, anthropology, archaeology, and art and architectural history.

The major builds on the interdisciplinary sustainability core curriculum. Students will enroll in major-specific courses in their junior and senior year. As part of the degree requirements, students will work in teams with students enrolled in related majors to solve problems collaboratively. Students are encouraged to take advantage of local and international independent research opportunities, internships and field camps to gain real-world experience.

Major and Minor in Environmental Humanities (EHM)

Requirements for the Major in Environmental Humanities

A. Required Foundation Courses for Major (30 credits)

- AMS 102 Elements of Statistics
- ANT 102 What Makes Us Human?
- GSS 105 Introduction to Maps and Mapping
- POL 102 Introduction to American Government
- SUS 111 Introduction to Sustainability (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 201 Systems and Models (formerly offered as SBC 201)
- SUS 202 Introduction to Environmental Humanities (formerly offered as EHM 202)
- SUS 203 Critical Analysis (formerly offered as SBC 203)
- Two of the following:
  - ATM 201 Introduction to Climate and Climate Change
  - BIO 113 General Ecology
  - BIO 115 Evolution and Society
  - CHE/ENV 115 Chemistry, Environment and Life (Note: CHE 129, 131, or 152 may be substituted for CHE/ENV 115)
  - GEO 102 The Earth
  - MAR 101 Long Island Sound Science and Use
  - MAR 104 Oceanography
  - SUS 118 Introduction to the Natural History of Long Island (formerly offered as EHM 118)

B. Core Courses (12-13 credits)

- ENV 301 Sustainability of the Long Island Pine Barrens or SUS 401 Integrative Collaborative Systems Studies
- GSS 313/314 GIS Design and Applications/ GIS Laboratory or GIS 317 Geospatial Narratives
- SUS 301 Technical Writing and Communication (formerly offered as CSK 302)
- SUS 305 Collective Action and Advocacy (formerly offered as CSK 305)

C. Upper-Division Course Groups (24 credits)

Group 1: Natural Sciences

Choose one of the following:

- ENV 304 Global Environmental Change
- GEO 313 Understanding Water Resources for the 21st Century
- MAR 392 Waste Management Issues
Students are required to complete 21 credits total from the courses of Groups 2, 3, and 4. Select one course from each of Groups 2 and 3 and two courses from Group 4. The remaining three courses may be selected from any one area or spread across areas as is most relevant to the student. With the permission of the faculty advisor, students may do an independent study or research (SUS 487, SUS 488, or ANP 487) in place of 3 credits in groups 2, 3, or 4.

Other classes may be substituted with permission of undergraduate director.

Group 2: Writing and Literature

- SUS 320 Utopia and Dystopia in the Environment in Literature and Culture (formerly offered as EHM 321)
- SUS 321 Ecology and Evolution in American Literature (formerly offered as SBC 321)
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 328 Ecofeminism, Lit, and Film (formerly offered as EHM 322)
- SUS 350 Contemporary Topics in Sustainability (SUS 350 is a topics course, and may be applied to Groups 2, 3, or 4 with permission.)

Group 3: Social Sciences

- AFS 374/SUS 374 Environment and Development in African History
- ENS 333 Environmental Law
- HIS 302 Environmental History in a Global Perspective
- SOC 344 Environmental Sociology
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 314 Civilizations and Collapse (formerly offered as EHM 314)
- SUS 315 Ethnographic Field Methods (formerly offered as EHM 315)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 318 American Environmental Politics (formerly offered as SBC 308)
- SUS 323 Environmental Justice (formerly offered as EHM 323)
- SUS 324 Human Geography and the Environment
- SUS 343 Age of the Anthropocene
- SUS 350 Contemporary Topics in Sustainability (SUS 350 is a topics course, and may be applied to Groups 2, 3, or 4 with permission.)
- SUS 386 The Maya (formerly offered as EHM 386)

Group 4: Digital Skills for the Humanities

- SUS 117 Design and Drawing (formerly offered as SBC 117)
- SUS 329 Environmental Film, Media, Arts (formerly offered as EHM 325)
- SUS 350 Contemporary Topics in Sustainability (SUS 350 is a topics course, and may be applied to Groups 2, 3, or 4 with permission.)

Optional Study Abroad Experience (4-6 credits, may be taken to apply to Groups 2, 3, or 4 with permission)

- ANP 307 Comparing Ecosystems in Madagascar
- ANP 310 Environments, Ecosystems and Evolution: Evidence from the Turkana Basin
- ANP 326 Lemurs of Madagascar
- ANP 391 Ecosystem Diversity and Evolution
- SUS 316 Cuba and Sustainability (formerly offered as EHM 316)

D. Upper-Division Writing Requirement

The advanced writing component of the major in EHM requires registration in the 0-credit SUS 459 and approval of either a term paper or a laboratory report written for an advanced course in the appropriate major at Stony Brook (including Readings and Research courses). Completion of SUS 459 with a grade of S will result in approval of the WRTD requirement. A list of preapproved courses can be obtained through the department. Students should consult with the department advisor to ensure that their plan for completing the Upper Division Writing Requirement is consistent with university graduation requirements for General Education. Students completing the Stony Brook Curriculum (SBC) must complete a course that satisfies the "Write Effectively within One's Discipline" (WRTD) learning objective to graduate. The Upper Division Writing Requirement is consistent in most cases with the SBC learning outcomes for WRTD.

Note:
No more than one course (4 credits maximum) with a passing grade lower than C can be credited towards the major. Course taken with the Pass/NC option may not be applied to the major.

Double Majors

Excluding ENV 301 (Sustainability of the Long Island Pine Barrens), SUS 301 (Technical Writing and Communication), SUS 305 (Collective Advocacy and Action), and SUS 401 (Integrative Collaborative Systems Studies), no more than 6 credits of 300-400 level course credits can be applied to two majors within the School of Marine and Atmospheric Sciences.

Study Abroad

Stony Brook University: www.stonybrook.edu/ugbulletin
Stony Brook University offers study abroad experiences that are focused on issues of sustainability in Costa Rica, Madagascar, and the Turkana Basin (Kenya). While issues of climate change, water and energy security, sustainable agriculture, environmental justice, sustainable economic development, conservation of unique and threatened ecosystems, population growth, and human health are important everywhere, viewing these issues through the lens of a different place and a different culture provides a valuable perspective. Students are encouraged to participate in study abroad experiences and to talk with their major director to determine how study abroad coursework can be used to fulfill some requirements for their major.

**Minor in Environmental Humanities (EHM)**

The Environmental Humanities minor is intended for students who seek to complement their chosen major with a foundation in the humanistic aspects of environmental studies and develop skills in one of Environmental Humanities core areas of study.

**Requirements for the Minor in Environmental Humanities (EHM)**

At least 12 credits applied to the minor may not be applied to any major or other minor within the School of Marine and Atmospheric Sciences. No more than one three-credit course in the minor may be taken under the Pass/No Credit option. All upper-division courses offered for the minor must be passed with a letter grade of C or higher. Completion of the minor requires 21 credits.

**Declaration of the Minor**

Students should declare the Environmental Humanities minor no later than the middle of their junior year, at which time they should consult with the minor coordinator or undergraduate director and plan their course of study for fulfillment of the requirements.

**A. Required courses (12 credits)**

- SUS 111 Introduction to Sustainability Studies (formerly offered as SBC 111) or ENS 101 Prospects for Planet Earth
- SUS 202 Introduction to Environmental Humanities (formerly offered as EHM 202)
- SUS 203 Interpretation and Critical Analysis (formerly offered as SBC 203)

One of the following courses:

- ATM 201 Introduction to Climate Change
- BIO 113 General Ecology
- BIO 115 Evolution and Society
- ENV 115 Chemistry, Life, Environment (Note: CHE 129, 131, or 152 may be substituted for CHE/ENV 115)
- MAR 101 Long Island Sound: Science and Use
- MAR 104 Oceanography
- SUS 118 Intro to the Natural History of Long Island (formerly offered as EHM 118)

**B. Electives (9 credits)**

Choose one of the following courses:

- GSS 317 Geospatial Narratives: Deep Mapping for Humanities and Social Sciences
- SUS 117 Design and Drawing (formerly offered as SBC)
- SUS 329 Environmental Film, Media, Arts (formerly offered as EHM 325)

Choose two of the following courses:

- AFS 374/SUS 374 Environment and Development in African History
- ENS 333 Environmental Law
- SUS 309 Global Environmental Politics (formerly offered as SBC 309)
- SUS 314 Civilizations and Collapse (formerly offered as EHM 314)
- SUS 315 Ethnographic Field Methods (formerly offered as EHM 315)
- SUS 317 American Environmental History (formerly offered as SBC 307)
- SUS 318 American Environmental Politics (formerly offered as SBC 308)
- SUS 320 Utopia and Dystopia in the Environment in Lit and Culture (formerly offered as EHM 321)
- SUS 321 Ecology and Evolution in American Literature (formerly offered as SBC 321)
- SUS 323 Environmental Justice (formerly offered as EHM 323)
- SUS 325 Environmental Writing and the Media (formerly offered as SBC 325)
- SUS 328 Ecofeminism, Lit, and Film (formerly offered as EHM 322)
- SUS 343 Age of the Anthropocene
- SUS 350 Contemporary Topics in Sustainability
- SUS 386 The Maya (formerly offered as EHM 386)
Sample Course Sequence for the Major in Environmental Humanities
A course planning guide for this major may be found here. The major course planning guides are not part of the official Undergraduate Bulletin, and are only updated periodically for use as an advising tool. The Undergraduate Bulletin supersedes any errors or omissions in the major course planning guides.

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SUS

Sustainability Studies

SUS 111: Introduction to Sustainability
Survey course introduces concept of sustainability. Sustainability is often defined as the ability to provide for the needs of the world's current population without damaging the ability of future generations to provide for themselves. This course reviews the needs of the current population and future generations, trends that affect our ability to provide those needs, and possible solutions that are environmentally, economically, and socially acceptable. Formerly offered as SBC 111; not for credit in addition to SBC 111.

SBC: SNW
3 credits

SUS 113: Physical Geography Lecture
This study of geosystems examines modern environmental problems through quantitative methods, analysis, and modeling grounded in basic and applied science and research. The goal of the course is to introduce students to the fundamental processes that dominate the atmosphere, hydrosphere, lithosphere, and biosphere, their characteristics and complex interactions, and their impact on human life and society. Formerly offered as SBC 113; not for credit in addition to SBC 113.

DEC: E
SBC: SNW
3 credits

SUS 114: Physical Geography Lab
This laboratory course provides hands on experience in understanding the geosystems, including distribution and interrelationships of climate, vegetation, soils, and landforms. Formerly offered as SBC 114; not for credit in addition to SBC 114.

Prerequisite: SUS 113 (formerly SBC 113)
1 credit

SUS 115: Introduction to Human Demography
An introductory course on the study of human population. Measurement issues and data in demographic analysis, as well as demographic perspectives on the basis of a review of major sources of information about population studies will be presented. Theories incorporating social, economic and political explanations for influences on human population growth will be considered. Population processes, with focus on fertility, mortality and migration, are reviewed. Population structure and characteristics, the interaction of the population processes and the number of people in a society of a given age, sex, race, ethnicity, socio-economic levels, marital status, and gender, are reviewed. Major issues related to sustainability (such as economic development, food and pollution, urbanization, gender and minority empowerment, and the human relationship and ecology with other organisms and species) are reviewed. Formerly offered as SBC 115; not for credit in addition to SBC 115.

Prerequisite: MAT 125, MAT 131, MAT 132, AMS 151, or level 6 or higher on math placement exam
SBC: SBS
3 credits

SUS 117: Design Drawing
This introductory course exposes the student to the fundamental theories and practices employed in visually representing design concepts from observational through technical and speculative drawing. The course content introduces the student to contour drawing, rendering, orthographic projection, and pictorial drawing. Project work engages the student in the application of the above-mentioned drawing techniques and develops skills through the solution of student tailored problems. Formerly offered as SBC 117; not for credit in addition to SBC 117.

DEC: D
SBC: TECH
3 credits

SUS 200: Human Settlement: History and Future
The history of city growth over the millennia as affected by technological change is a basis for understanding the future of human settlement. More than half of the world's population currently lives in cities and urbanization continues on a global scale. The universality of urban development and resulting patterns will be presented as well as limits on growth of cities. Architectonic and socioeconomic planning theories and strategies for sustainable growth are presented. The development of Long Island, which is a microcosm of national and global patterns, will be discussed in detail. Formerly offered as SBC 200; not for credit in addition to SBC 200.

DEC: F
SBC: SBS
3 credits

SUS 201: Systems and Models
Introduction to the dynamic modeling of complex systems. Students will learn to use simulation software that facilitates the visualization, formulation, and analysis of systems. Students will learn about systems with positive and negative feedbacks, the effects lags on system performance, and the difference between stocks and flows. Systems studied will include ecological models, economic models, chemical models, population models, epidemiological models, and models that include the interactions between population, economic development, and the environment. Formerly offered as SBC 201; not for credit in addition to SBC 201.

Prerequisite: AMS 102 or AMS 151 or MAT 125 or MAT 131 or MAT 141 or a score of 4 or better on the Math Placement Exam
SBC: TECH
3 credits

SUS 202: Introduction to Environmental Humanities
An interdisciplinary inquiry into ethics, arts, culture, and theory in relation to environmental humanities. The course will be an overview of the emerging field of environmental humanities and will draw from multiple disciplines (philosophy, history, cultural studies, and literary criticism) to better our relationship to the nonhuman world. This course is a reading and writing intensive seminar and will require extensive writing practice, journaling, fieldwork, and formal essays. While you will be presented with established ideas and trends in environmental humanities, students will also be encouraged to formulate their own approaches to the material. The instructor values projects which exhibit critical and creative thinking along with a thorough understanding of rhetorical skills. Formerly offered as EHM 202; not for credit in addition to EHM 202.

Prerequisite: WRT 102
DEC: G
SBC: HUM
3 credits

SUS 203: Interpretation and Critical Analysis
An introduction to interdisciplinary inquiry and representation in arts, culture, and theory with emphasis on the roles of analysis, argument, and imagination in multiple media. Requires serious engagement with sophisticated texts. Formerly offered as SBC 203; not for credit in addition to SBC 203.

Prerequisite: WRT 102
DEC: G
SBC: CER, HUM, WRTD
3 credits
3 credits

**SUS 204: Population Studies**
The course will present basic mathematics of population growth and introduce various approaches for modeling populations, including population viability analysis (PVA). PVA, the quantitative assessment of the extinction risk of rare species or populations, takes biological information (habitat requirements, birth and death rates, population size) and makes predictions about future population sizes. Real examples will be discussed for a range of organisms, from bacteria to plants and mammals. This course will provide also the background for understanding human population growth. The impacts of human population growth in the developed and developing world on the ecology of other organisms, habitats and systems will also be discussed. Formerly offered as SBC 204; not for credit in addition to SBC 206.

*Prerequisite: MAT 125, MAT 131, or AMS 151*

DEC: E  
SBC: STEM+

3 credits

**SUS 206: Economics and Sustainability**
Introduction to the basic economic concepts used in sustainability analysis. Students will learn the basic concepts and how to apply them in various contexts. Topics include the analysis of situations in which the behavior of individuals indirectly affects the well-being of others, strategic behavior and the environment, and the use of market-oriented policies to help in the stewardship of the environment. Formerly offered as SBC 206; not for credit in addition to SBC 206.

*Prerequisite: ECO 108*

DEC: F  
SBC: SBS+

3 credits

**SUS 301: Technical Writing and Communication**
A course devoted to the presentation of technical information to different audiences. Styles of writing to be covered will include grant proposals, reports, and journal articles; principles of oral presentation will include elements of design and graphs. Formerly offered as CSK 302; not for credit in addition to CSK 302.

*Prerequisite: WRT 102 and declared major or minor in: COS, EDP, EHI, EHM, ENS, GSS, or SUS*

SBC: SPK

3 credits

**SUS 302: Integrative Assessment Models**
Use, evaluation, and development of integrated assessment models. These models typically integrate environmental concerns with variables from other disciplines for the purpose of providing policy advice to decision-makers. Students will learn about the most frequently used integrated assessment models and what we can learn from them. The models studied will include the World3 model, which was the basis of the famous book "The Limits to Growth."

*Prerequisite: SUS 201 (formerly SBC 201); U3/U4 status

3 credits

**SUS 305: Collective Action and Advocacy**
This course will address the ways in which people act collectively to address social problems or to change social policy. The course will be divided into two sections: a general introduction to the study of collective action, and a set of case studies in environmental activism. Formerly offered as CSK 305; not for credit in addition to CSK 305.

*Prerequisite: SUS 111 (formerly SBC 111) or ENS 101*

Advisory Prerequisite: POL 102 or SOC 105

DEC: F  
SBC: SBS+

3 credits

**SUS 306: Business and Sustainability**
This course examines the interface between business and sustainability. It considers opportunities for the development and growth of profit and not-for-profit businesses associated with the promotion of sustainability. It also covers how environmental concerns and related governmental regulations influence business operations and profitability. Students will apply career skills and concepts from environmental economics to understand how business functions (e.g., operations, public relations, sales, health and safety, and corporate social responsibility) are influenced by environmental concerns. The course will highlight current issues and cases, provide an overview of theory and practice, and generate research to test students’ hypotheses, and generally explore opportunities and threats to business viability. Review of current affairs, case analyses, role plays, field trips, and guest speakers will be included along with required reading in seminal theory and research.

*Prerequisite: ECO 108*

3 credits

**SUS 307: Environmental Economics and Management**
This course presents advanced concepts in environmental economics and management through a series of detailed case studies. The cases include those concerning the US sulfur-dioxide permit trading system, the Kyoto Protocol, zoning, coastal fisheries, the use of ethanol in gasoline, tradable development rights in the Long Island Pine Barrens and the conservation of endangered species.

*Prerequisite: SUS 206 (formerly SBC 206)*

SBC: STAS

3 credits

**SUS 308: Economic Development**
This course teaches students about economic development and its relationship to the environment. Students learn about both the theory of economic growth and the way development has proceeded in various regions of the world. Examples will come from the Asian tiger economies of East Asia and the development disasters in Sub-Saharan Africa. The relationships between the levels and rates of growth of output and various environmental indices will be explored.

*Prerequisite: SUS 206 (formerly SBC 206)*

3 credits

**SUS 311: Disasters and Society: A Global Perspective**
This class introduces students to the sociological examination of natural, technological, and industrial disasters. Students will explore how and why disasters are fundamentally social events: What do disasters reveal about society? Why are the human consequences of disasters unequally distributed? What are the typical ways in which states, organizations, and communities respond to disasters? Focusing on case studies from around the world, students will discuss: What are the long-term/short-term causes of particular disasters? What forms of suffering the disasters under consideration generated? What state/civil society actions did they trigger? What advocacy networks were put in place in their aftermath? Formerly offered as SBC 311; not for credit in addition to SBC 311.

*Prerequisite: SUS 111 (formerly SBC 111), or ENS 101, or GEO 101; POL 102 or SOC 105*

DEC: H  
SBC: STAS

3 credits

**SUS 314: Civilizations and Collapse**
A comparative study of the development and collapse of civilizations. Changing case studies
drawn from prehistoric and historic societies in the Americas provide students with an in-depth understanding of the ways in which two non-Western cultures were affected by and attempted to cope with environmental change. Students will learn to think critically about these processes and will complete the course with an increased awareness of the diversity of human responses to climatic change. Formerly offered as EHM 314; not for credit in addition to EHM 314.

Prerequisite: EHM 314; not for credit in addition to EHM 314.

DEC: J
SBC: GLO
3 credits

SUS 316: Cuba and Sustainability
For a variety of reasons, Cuba represents a wonderful case study for the value of using the natural history, arts, media and cultural traditions as a means of encouraging citizens to adopt environmentally sustainable practices. Working with the University of Havana Geography department, as well as Artes Escenicas Cubanas (Performing Arts organization) and Cuban writers about the environment, the class will explore the complexities of sustainability with an emphasis on the role of humanities in a global context with hands-on experience. Formerly offered as EHM 316; not for credit in addition to EHM 316.

DEC: G
SBC: EXP+, GLO, HUM
3 credits

SUS 317: American Environmental History
This course provides an overview of the history of how Americans have used, viewed and valued the natural environment. Beginning with the Indians and the early colonists (15th-16th centuries), the course will examine the cultural, social, economic, political, and technological currents that shaped North Americans' relationships with their environment in early and later industrial eras, after World War II, and finally, in the late 20th and early 21st centuries. Historical snapshots will center on people living in more natural places, such as farms and forests, as well as more built places, such as factories, cities, and suburbs. Events in the northeastern U.S. will provide a geographic focus, but the course will also look at related happenings elsewhere on the North American continent and beyond. Finally, it will examine at the growing array of movements that have identified themselves as 'environmental,' at the 'greenness' of modern culture, and at the environmental dimensions of a globalizing era. Formerly offered as SBC 307; not for credit in addition to SBC 307.

Prerequisite: WRT 102

DEC: K & 4
SBC: SBS+, USA
3 credits

SUS 318: American Environmental Politics
This course will survey the politics of environmental policy-making in the United States. It examines how contrasting political, economic and social interests and values have clashed and contested with one another, and the exerted power, in the environmental policy realm. The course will explore past precedents and roots, but with a view to explain the shape of this realm in the modern United States, including the many actors and institutions: local, regional and national governments, non-governmental organizations and interest groups, as well as the public. It will look at the main patterns by which these groups have defined environmental problems and formulated and implemented solutions. A chief goal is to illuminate how and why solutions of real-world environmental problems, if they are to be effective, differ from those of scientific or engineering puzzles. Formerly offered as SBC 308; not for credit in addition to SBC 308.

Prerequisite: POL 102

DEC: G
SBC: SBS+
3 credits

SUS 319: Restoration Ecology
A study of the rationale, principles, practices, and legal, social, economic, and ethical issues associated with restoring the structure and function of degraded ecological systems. Restoration ecology draws heavily from ecological theory, and the process of restoring a site can in fact provide unique experimental opportunities to test how well ecological theories predict the responses of natural systems. Important ecological concepts applied in restoration include disturbances, succession, fragmentation, system function, as well as, emerging areas such as assembly theory and alternative stable states. Formerly offered as EHI 310; not for credit in addition to EHI 310.

Prerequisite: BIO 201

SBC: STEM+
3 credits

SUS 320: Utopia and Dystopia and the Environment in Literature and Culture
Examines 20th and 21st century Western cultural depictions of utopias and dystopias in literature (nonfiction, fiction). The course will consider literary representations of ideal or fallen societies, as well as 'real life' communities such as intentional, communal, co-operative 'utopic' models across the globe. Students will consider the 'sustainability' implications of living in 'utopic' and 'dystopic' communities. Students will write six short analytical essays about the course readings, give an oral and visual presentation on a real-life global utopic/dystopic community, and design their own model environmental utopic/dystopic community. Formerly offered as EHM 321; not for credit in addition to EHM 321.

Prerequisite: U3 or U4 status

Advisory Prerequisite: One literature course at the 200 level or higher

DEC: G
SBC: HFA+
3 credits

SUS 321: Ecology and Evolution in American Literature
This course is a review of 19th- and 20th-century American writers who trace the evolution of the US with respect to ecological practices through various multicultural perspectives. Literature covered will include transcendentalist essays, utopian/dystopian novels, ecofeminist fiction, and journalism. This course is offered as both EGL 319 and SUS 321. Formerly offered as SBC 321; not for credit in addition to SBC 321.

Prerequisite: WRT 102

Advisory Prerequisite: SUS 203 (formerly SBC 203)

DEC: G
SBC: HFA+, WRTD
3 credits

SUS 322: Human Ecology
Human ecology investigates how humans and human societies interact with nature and with their environment. Course first introduces the concepts and methods of human ecology. Following this foundation, the course will give special emphasis to empirical examples, case studies and lessons from history. The course will focus on individuals, communities and traditional societies. Human Ecology compliments Human Geography, which studies patterning at the larger scale. Formerly offered as EHI 322; not for credit in addition to EHI 322.

Prerequisite: BIO 201

SBC: STEM+
3 credits

SUS 323: Environmental Justice
Explores the inequitable distribution of environmental risks, such as exposure to toxic chemicals and materials, versus environmental benefits such as access to environmental protections and natural resources. Most importantly, this course explores the essential question of 'why' there is such an inequity and, oftentimes, 'who' permits or allows disparate treatment. As Dr. Robert Bullard states, "who gets what, why, and how much?" Understanding the moral questions that underpin environmental justice requires exploration from the sociopolitical standpoint, but also through legal, economic, policy, and historical standpoints on a domestic, international, and transnational scale. The course will include readings from sociology and political science texts and perspectives, as well as literary and film portrayals of environmental justice topics. Formerly offered as EHM 323; not for credit in addition to EHM 323.

Prerequisite: WRT 102
Advisory Prerequisite: SUS 203 (formerly SBC 203)
DEC:  H
SBC:  CER, STAS, WRTD
3 credits

SUS 324: Human Geography and the Environment
A study of the historical, geographical, and humanistic foundation for understanding the environment and the environmental issues that confront us today. The fundamental principle of this course is that environmental dynamics are inseparable from social, cultural, political, and economic processes and relations. By studying these complex relationships between humans and the natural environment over time and through space, students examine how human activity impacts the environment in different geographical regions and periods and how the environment responds.

Prerequisite: POL 102 or SOC 105 or SUS 111 or SUS 307
SBC:  SBS+
3 credits

SUS 325: Environmental Writing and the Media
An examination of multiple genres (including: photo journalism, literary nonfiction, fine art and advertising and documentary film) in order to understand ways in which these genres are utilized to inform and manipulate public opinion regarding the environment. The culmination of the course will be a final project using multiple genres. Formerly offered as SBC 325; not for credit in addition to SBC 325.

Prerequisite: WRT 102
Advisory Prerequisite: SUS 203 (formerly SBC 203)
DEC:  G
SBC:  HFA+, WRTD
3 credits

SUS 326: Conservation Genetics
This course is an introduction to genetics taught in the context of conservation. The course will cover a basic introduction to Mendelian, molecular, population, evolutionary and meta-population genetics, and then examine specific applications of these concepts to topics in conservation biology. Formerly offered as EHI 326; not for credit in addition to EHI 326.

Prerequisite: BIO 201
DEC:  E
SBC:  STEM+
3 credits

SUS 328: Ecofeminism, Literature & Film
Ecofeminism, Literature, and Film will examine the connections among ecology and feminism in literature, film, conservation and sustainability. Ecofeminism is a complex ecocritical and philosophical approach to reading literature, film, and culture; it asks that we rethink our relationship to the earth and our responsibilities as human beings to all living creatures and to people of all races, cultures, and genders. In this course, students will study ecofeminist concepts in poetry, nonfiction essays, fiction, and films, and they will examine the work of prominent women ecologists, conservationists, and environmentalists. Formerly offered as EHM 322; not for credit in addition to EHM 322.

Prerequisite: WRT 102
Advisory Prerequisite: SUS 203 (formerly SBC 203)
DEC:  G
SBC:  HFA+, WRTD
3 credits

SUS 329: Environmental Film, Media, Arts
This course is designed to develop visual communication skills and strategies to inspire environmental awareness and advocacy. The course extends beyond two-dimensional graphic design to include critical approaches to the practice of environmental design, film and visual art. With a focus on strategic messaging and technical skills, students will learn design principles, image making and filmmaking to bridge environmental issues through diverse media texts. Students will pick one topic, which will be used throughout the course as a primary theme and applied to various media and art projects. Each media project will use the tools of visual communication to engage the public and foster positive environmental, social, political, and ethical change. Formerly offered as EHM 325; not for credit in addition to EHM 325.

Prerequisite: SUS 111 (formerly SBC 111) or ENS 101; U3 or U4 status
Advisory Prerequisite: SUS 203 (formerly SBC 203)
SBC:  HFA+
3 credits

SUS 340: Ecological and Social Dimensions of Disease
The ecology and evolutionary biology of disease will be examined to provide a more general context for human diseases. Pathogens may have large effects on many different types of organisms, from bacteria to plants to humans. We will build on this biological background to examine the social dimensions of disease in human populations and societies, including historical, political and economic aspects to issues of money, power, sexuality, international development and globalization. Specific case studies (the chestnut blight in North America, AIDS in Africa, etc.) will be used to examine concepts and principles in detail in a real-world context. This course will investigate basic fundamentals and recent research on these issues in a unified framework. Formerly offered as EHI 340; not for credit in addition to EHI 340.

Prerequisite: BIO 201
DEC:  H
SBC:  STAS
3 credits

SUS 342: Energy and Mineral Resources
This class will explore the origin, distribution, and importance of energy and mineral resources to modern civilization, with an emphasis on fossil fuels and non-renewable mineral resources extracted from Earth. Geological processes responsible for the formation and distribution of energy and mineral resources, as well as current and future supply and demand are discussed. The environmental implications of the extraction and use of energy and mineral resources as well as techniques to minimize the impact on the environment will be discussed.

Prerequisite: one D.E.C. E or SNW course
DEC:  H
SBC:  STAS
3 credits
SUS 343: Age of the Anthropocene
Provides a deeper understanding of the ways in which humans have interacted with and transformed the planet during recent geologic time, including the Holocene, Industrial Revolution, and into the present. We consider Earth as a global ecosystem, characterized by interacting and dynamic systems, including natural and anthropogenic. This course critically examines the current interpretations and applications of the term Anthropocene, and identifies the key tenants and societal outcomes of this powerful, and sometimes conflicting, idea as applied today in science, sustainability, and beyond.
Prerequisite: one of the following courses: SUS 111 (formerly SBC 111), SUS 113 (formerly SBC 113), ENS 101, GEO 101, GEO 102, ENV 115, CHE 131
DEC: H
SBC: STAS
3 credits

SUS 344: Sustainable Natural Resources
This course explores in depth the economic viability, social acceptance, and potential of sustainable natural resources to replace non-renewable resources. Examples are drawn from water resource management, agriculture, forestry, fisheries, and renewable energy resources (wind, solar, biofuel, etc.). There is particular emphasis on examples of integrated, participatory and sustainable natural resources management project in less developed countries. Formerly offered as EHI 343; not for credit in addition to EHI 343.
Prerequisite: SUS 111 (formerly SBC 111) or ENS 101; ENV 115 or CHE 131; BIO 201
DEC: H
SBC: STAS
3 credits

SUS 350: Contemporary Topics in Sustainability
This course deals with the meaning and the application of the idea of sustainability. First, the mathematics of exponential and linear growth, and the concept of stability in complex systems will be developed. The idea of stable equilibrium and the long-term/short term distinction will also be discussed. Then, various subjects of sustainability—populations, species, habitats, ecosystems, resources, cultures, modes of production, economic systems, and political systems will be considered. Various purposes of sustainability for its own sake, for human welfare, for the welfare of nature will also be discussed. May be repeated as the topic changes.
Prerequisite: SUS 111 (formerly SBC 111); U3/U4 status
3 credits

SUS 351: Design and Implement a Research Project in Ecotoxicology
Research, design and implement a unique project in ecotoxicology. Course covers literature reviews, hypothesis formation, initial implementation of a research project, and some write-up. Projects vary by year but may involve ecotoxins such as acid rain, heavy metals, pesticides, plastics or herbicides and organisms such as soil microbes and/or earthworms. Students are encouraged but not required to enroll in SUS 352, offered in the spring, to complete and communicate their project. Course may be repeated once with director's approval. This course has an associated fee. Please see www.stonybrook.edu/coursefees for more information. Formerly offered as EHI 350; not for credit in addition to EHI 350.
Prerequisite: C or better in one of the following: BIO 201, BIO 202, BIO 203, CHE 115, CHE 123, CHE 129, CHE 131, CHE 141, CHE 152, PHY 121, PHY 125, ENV 115
SBC: EXP+, STEM+
3 credits

SUS 352: Conduct and Communicate a Research Project in Ecotoxicology
Conduct and communicate a student-designed project in ecotoxicology. Course covers data collection, data analysis and write up. Students will communicate their research at an appropriate venue such as URECA. Projects vary by year and will involve ecotoxins such as acid rain, heavy metals, pesticides, plastics or herbicides and organisms such as soil microbes or earthworms. Course builds on a project initiated in SUS 351, but SUS 351 is not a prerequisite. Course may be repeated once with the director's approval. This course has an associated fee. Please see www.stonybrook.edu/coursefees for more information. Formerly offered as EHI 351; not for credit in addition to EHI 351.
Prerequisite: C or better in one of the following: BIO 201, BIO 205, 207, CHE 133, 134, 154, PHY 123, 124, 133, 134, 191, 192, EHI 350
SBC: EXP+
3 credits

SUS 354: Drawing for Design--CAD
Techniques and Theory of Drawing; Architectural Drawing; Learning Computer Assisted Design (CAD). This course will serve as an introduction to CAD tools relevant to design and architectural rendering. Formerly offered as SBC 354; not for credit in addition to SBC 354.
Prerequisite: SUS 117 (formerly SBC 117)
SBC: STEM+
3 credits

SUS 362: Resilient Communities
Resilience as a process can be embodied by communities who proactively prepare for, absorb, recover from, and adapt to actual or potential future adverse events, instead of bearing repeated damage and continuously demand for federal disaster assistance. This course explores the idea of resilience as an outcome and as a process from different perspectives and in different contexts. We will first study resilience through the lens of sociopolitical ecology of risk and vulnerability. Then we will explore resilience in the face of natural, social and economic instability shocks. Finally we will discuss long term risk management, governance models, policies and politics involved in making our communities more resilient.
Prerequisite: EDP 301 or EDP 302 or SOC 344
3 credits

SUS 366: Philosophy of the Environment (III)
Philosophical questions raised by human relations with the natural world, ranging from basic concepts such as nature, ecology, the earth, and wilderness, to the ethical, economic, political, and religious dimensions of current environmental problems, including the question of whether there are values inherent in nature itself beyond those determined by human interests alone. This course is offered as both PHI 366 and SUS 366.
Prerequisite: PHI 104 or PHI 105
DEC: G
SBC: CER, HFA+
3 credits

SUS 374: Environment and Development in African History
Provides a critical exploration of the history and political-economy of environmental changes and human activities in Africa from earlier times to the present. It examines the ways in which the dynamics of human-environment relationship have shaped the development of African societies and economies from the rise of ancient civilizations to the contemporary problems of war and famine. Although significant attention will be given to the pre-colonial era (like the impacts of iron-working, irrigation, deforestation and desertification), the focus of
the course will be on the 20th and century and after, looking at the impacts of imperialism, colonialism, globalization and the postcolonial quest for development on the state of the environment in Africa. In the discussion, we will demonstrate that the shaping of African environments and ecologies is a product of complex, evolving and interconnected developments between humans and nature within and beyond the African continent. Offered as both AFS 374 and SUS 374. Not for credit in addition to SBC 320 or SBC 374.

Prerequisite: U3 or U4 status

DEC: J
SBC: GLO, SBS+
3 credits

SUS 386: The Maya
For many, the word 'Maya' evokes images of a lost dead culture and ruined pyramids. This course uses that familiarity as a starting point and follows the history of the Maya from ancient times to the present. We begin with an overview of what scholars know about the ancient Maya before tracing their experiences since the Spanish conquest, placing emphasis on Spanish colonization in the lowland areas of Mesoamerica, Mexico's War of the Castas, and the diverse experiences of the modern Maya including the Guatemalan Civil War and the Chiapas uprising, the impact of foreign tourism, and the experience of transnational migration. Special attention will be paid to the ways in which environmental and agrarian issues have impacted this diverse group of peoples. Offered as both HIS 386 and SUS 386. Formerly offered as EHM 386; not for credit in addition to EHM 386.

Prerequisite: U3 or U4 standing; 1 D.E.C. F or SBS course

DEC: J
SBC: SBS+
3 credits

SUS 401: Integrative, Collaborative Systems Studies
Problem-based capstone course. Formerly offered as SBC 401; not for credit in addition to SBC 401.

Prerequisite: U3 or U4 status; major in COS, EHI, EHM, or SUS, or permission of the department

SBC: ESI
3 credits

SUS 405: Environmental Sustainability in Tanzania
Focus on environmental issues in Tanzania as a sample of the developing world, with emphasis on present condition and future prospects. We examine how climate, technology development, and agriculture affect the environment. Also, impacts of environmental degradation and national policies (including the United Nations Sustainable Development Goals) on poverty reduction, natural resources, health and economic growth are discussed.

Prerequisite: one of the following: SUS 111 (formerly SBC 111), ENS 101, GEO 101

SBC: EXP+, GLO
3 credits

SUS 444: Experiential Learning
This course is designed for students who engage in a substantial, structured experiential learning activity in conjunction with another class. Experiential learning occurs when knowledge acquired through formal learning and past experience are applied to a "real-world" setting or problem to create new knowledge through a process of reflection, critical analysis, feedback and synthesis. Beyond-the-classroom experiences that support experiential learning may include: service learning, mentored research, field work, or an internship.

Prerequisite: WRT 102 or equivalent; permission of the instructor and approval of the EXP+ contract (http://sb.cc.stonybrook.edu/bulletin/current/policiesandregulations/degree_requirements/EXPplus.php)

SBC: EXP+
0 credit, S/U grading

SUS 459: Write Effectively in Sustainability
A zero-credit course that is taken in association with a 300- or 400-level course approved by the major. SUS 459 provides opportunity to practice the skills and techniques of effective academic writing and satisfies the learning outcomes of the Stony Brook Curriculum's WRTD learning objective.

Prerequisite: WRT 102; permission of the instructor

SBC: WRTD
0 credit, S/U grading

SUS 475: Undergraduate Teaching Practicum
Work with a faculty member as assistant in a regularly scheduled course. The student must attend all classes and carry out all assignments; in addition the student will be assigned a specific role to assist in teaching the course. The student will meet with the instructor on a regular basis to discuss intellectual and pedagogical matters relating to the course.

Prerequisites: Permission of instructor and undergraduate director

SBC: ESI, EXP+
3 credits, S/U grading

SUS 476: Undergraduate Teaching Practicum II
Work with a faculty member as assistant in one of the faculty member's regularly scheduled courses. Students assume greater responsibility in such areas as leading discussions and analyzing results of tests that have already been graded. Students may not serve as teaching assistants in the same course twice.

Prerequisites: Permission of instructor and undergraduate director

SBC: EXP+
3 credits, S/U grading

SUS 487: Research in Sustainability
Qualified advanced undergraduates may carry out individual research projects under the direct supervision of a faculty member. May be repeated.

Prerequisite: Permission of instructor

SBC: EXP+
0-6 credits

SUS 488: Internship in Sustainability Studies
Participation in local, state, and national public and private agencies and organizations. May be repeated to a limit of 12 credits.

Prerequisites: U3/U4 status and permission of the SoMAS Undergraduate Program Director

SBC: EXP+
0-12 credits, S/U grading