EHM

Environmental Humanities

EHM 118: Introduction to the Natural History of Long Island
This multidisciplinary course focuses on the natural history of Long Island and the ecological analysis of local forests, salt marshes, marine intertidal systems and bogs. Students will become familiar with observation techniques and conceptual approaches used to investigate ecological patterns and processes in the local environment.
DEC: E
SBC: SNW
3 credits

EHM 201: Eco-Aesthetics in Art
The biology, scale, texture, and color of the natural world and their relation to Art, Architecture and Design. Explores concepts of aesthetic-ecological harmony (developing symbiotic relationships between human-made artifacts and naturally occurring environments) as well as the history of Environmental Art, Architecture and Design. Slide lectures, readings, and the creation of site development proposals will introduce students to the basic principles of aesthetics, ecology, environmental inventory, and environmental art/design.
DEC: D
SBC: ARTS
3 credits

EHM 310: Beyond Eden: Contact Narratives, Origins and Sin
This course surveys Pueblo, African, Spanish, British, and Shinnecock contributions to American literature from the 1500s through the 1900s. Students will extend their understanding of these diverse traditions by analyzing contemporary literature that addresses the themes of nature, origins and sin, and by engaging in their own creative work. A final project will require students to examine one tradition in depth, to demonstrate understanding of theoretical approaches to literature, and to engage in historical research.
Prerequisite: WRT 102
DEC: K
SBC: HFA+
3 credits

EHM 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.
Prerequisite: U3 or U4 status
DEC: J
SBC: GLO
3 credits

EHM 315: Ethnographic Field Methods
Ethnographic Field Methods will explore and apply the methodological tools used by anthropologists to gather and interpret data. Using classic ethnographic texts, students will study a variety of anthropological methods. Both qualitative and quantitative methods will be examined. Students will apply the methods studied in class to an independent research project throughout the semester.
Prerequisite: U3/U4 standing
Advisory Prerequisite: ANT 102
3 credits

EHM 320: Artists and Designers of the Environment and Ecosystems
The location of Stony Brook provides students with a unique opportunity to study the fertile atmosphere New York has provided for artists, architects and other intellectuals whose work centers on environmental concerns. Commencing with the work of Landscape Architect Frederick Law Olmsted, students will trace this rich history to post war artists including Alan Sonfist. We will also study the work of contemporary artists and designers, such as Jackie Brookner, and built works such as the Highline. Assignments will be centered on primary research into the creative process and sources of inspiration through photo documentation and interviews.
Prerequisite: U3 or U4 standing; completion of EHM 201 or another D.E.C. D or ARTS course
DEC: G
SBC: HFA+
3 credits

EHM 330: The Household in Non-Western Society
This course offers a survey of vernacular architecture in Non-Western societies worldwide. Students examine the design and meaning of vernacular architecture in a variety of cultures, exploring the ways in which construction practices and architectural design are shaped by cultural requirements and social mores. Special attention will be given to the future of vernacular architecture, and the ways in which housing may be designed to be both sustainable and culturally appropriate.
Prerequisite: U3 or U4 standing
Advisory Prerequisite: ANT 102, ANT 104, or ARH 205
DEC: J
3 credits

EHM 331: Precolumbian Urbanism
An examination of the development of Precolumbian cities throughout the Americas. Specific attention will be paid to the interaction of urban development and environment, as well as the ways in which culture and cosmology impact architectural design. In depth consideration will be given to urban architecture of specific cultural groups in North, Central, and South America.
Prerequisite: U3/U4 standing
DEC: J
SBC: GLO
3 credits

EHM 386: The Maya
For many, the word ’Maya’ evokes images of a long 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.
Advisory prerequisite: HIS 212
DEC: J
SBC: SBS+
3 credits

EHM 390: Humanity’s Quest for Food Security: The Last 10,000 Years in the Turkana Basin
Explores human innovation in maintaining food security by examining the record of the Turkana Basin through the last 10,000 years of environmental change. Students will evaluate the sustainability of fishing-gathering-hunting strategies and consider mechanisms for the spread of herding into the Turkana Basin 4000 years ago as climate conditions became more
arid. They will examine the development of diverse, complementary economic systems within the Turkana Basin from 3000 years ago to the present, and consider environmental and social impediments to farming in this area.

**Prerequisite:** Permission of the instructor/Study Abroad office

**DEC:** F  
**SBC:** SBS  
**3 credits**

**EHM 391: Nature & Nurture for Sustainable Health: Humans, Livestock & Vectors in the Turkana Basin**

The Turkana Basin offers unique opportunities to explore questions related to health, environment, gender, changing livelihoods and vector biology. The added nexus of ongoing climate change, environmental degradation and shifting demographics have complex, intertwined influences on humans and livestock. Through hands-on activities, students will probe issues related to biology and public health. Students will learn basic biology, including life cycles and evolutionary history of disease vectors and their impact on humans and livestock. They will also gain experience in designing, conducting, presenting and evaluating studies concerning current applied questions in the Turkana region, eastern Africa and the broader developing world.

**Prerequisite:** Permission of the instructor/Study Abroad office

**DEC:** E  
**SBC:** STEM+  
**3 credits**

**EHM 392: Water Security and Sustainable Development in the Turkana Basin**

Lake Turkana, the world’s largest desert lake, is now the focus of numerous development projects that have serious environmental, social, and political impacts. These include multiple dams and plantations in Ethiopia on the Omo River, which furnishes 90% of Lake Turkana’s water; the discovery of oil and a nearby large aquifer; and various other development initiatives. This course uses TBI’s unique geographic and strategic position to examine some of the contemporary and conceptual issues relating to disputes over trans-boundary water resources, such as hydropolitics, processes of securitization and de-securitization, hydro-hegemony and patterns of conflict and cooperation.

**Prerequisite:** Permission of the instructor/Study Abroad office

**DEC:** F  
**SBC:** SBS+  
**3 credits**

**EHM 487: Research in Environmental Humanities**

Qualified advanced undergraduates may carry out individual research projects under the direct supervision of a faculty member. May be repeated.

**Prerequisite:** Permission of instructor  
**1-6 credits, S/U grading**

**EHM 488: Internship in Environmental Humanities**

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 Undergraduate Program Director

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

**SBC**

**Sustainability Block Curriculum**

**SBC 111: Introduction to Sustainability Studies**

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.

**SBC:** SNW  
**3 credits**

**SBC 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.

**DEC:** E  
**SBC:** SNW  
**3 credits**

**SBC 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.

**Pre- or corequisite:** SBC 113  
**1 credit**

**SBC 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.

**Prerequisite:** MAT 125, MAT 131, MAT 132, or level 6 or higher on math placement exam.

**SBC:** SBS  
**3 credits**

**SBC 116: Introduction to Human Geography**

Survey course introduces geography as a social science by emphasizing the relevance of geographic concepts to human problems. Course emphasizes globalization and cultural diversity.

**DEC:** F  
**SBC:** SBS  
**3 credits**

**SBC 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.

**DEC:** D  
**SBC:** TECH
3 credits

SBC 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.

DEC: F
SBC: SBS

SBC 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.

Prerequisite: AMS 151 or MAT 125 or MAT 131 or MAT 141

2 credits

SBC 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.

Pre- or corequisite: WRT 102

DEC: G
SBC: CER, HUM, WRTD

3 credits

SBC 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.

Prerequisite: MAT 125

DEC: E
SBC: STEM+

3 credits

SBC 205: Introduction to Geospatial Analysis (lab course)
Introduction to geographic information systems (GIS) and remote sensing techniques as applied to documenting, mapping, analyzing, interpreting, and managing natural and cultural resources. Overview of types of GIS data, computer hardware and software used for geospatial analysis, basic cartography, and global positioning system (GPS).

1 credit

SBC 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.

Prerequisite: ECO 108

DEC: F
SBC: SBS+

3 credits

SBC 207: 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.

Prerequisite: WRT 102
DEC: K & 4
SBC: SBS+, USA

3 credits

SBC 308: 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.

Prerequisite: POL 102

DEC: K
SBC: SBS+

3 credits

SBC 309: Global Environmental Politics
This course will explore the politics of environmental policy-making within the international realm. Focused especially on environmental dilemmas that cross national boundaries (i.e., pollution), or that are shared by multiple nations (i.e., global warming) it will look at the ways that such problems have been defined and their solutions sought, both with and without an over-arching state or governance. It will survey the many groups, interests and values that have clashed and competed with one another to exert power and influence international environmental policies, as well as the variety of international institutions and agreements that have sought to formulate and implement solutions. One goal is to illuminate how and why effective solutions to global environmental problems

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differ from those to scientific or engineering puzzles. The course also aims to spur student engagement with the sometimes overwhelming nature of global environmental threats, the tenuous and sometimes counterproductive ways that knowledge and power can be linked, and the ways individuals may act powerfully in service of "sustainability."

Prerequisite: SBC 111 or ENV 115 or ENS 101 or GEO 101 or permission of instructor

SBC: GLO
3 credits

SBC 310: Migration, Development and Population Redistribution
This course draws upon the contributions of various social and natural sciences (including population and urban geography, demography, political science, sociology, history, economics, public health and environmental sciences) to explore the effects of migratory and demographic shifts on the environment, social welfare, public health, economic development, ethnic diversity, urbanization, public policy and planning. It will examine the political, social, environmental, health and economic effects on sustainability.

Prerequisite: SBC 115
3 credits

SBC 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?

Prerequisite: SBC 111, or ENS 101, or GEO 101; POL 102 or SOC 105
DEC: H
SBC: STAS
3 credits

SBC 312: Environment, Society, and Health
This class examines the interactions between environment, social structures, and institutions. The first part of the class examines the ways in which environmental issues are perceived and constructed by various social actors (lay public, state officials, scientists, activists, media). The second part of the class will examine the differential impact of class, race, and gender on the distribution of hazards and risks (what is commonly known as "environmental inequality"). In the third part of the class, students will be introduced to different cases of "contested environmental illnesses" (cancer, lead-poisoning, asthma).

Prerequisite: SBC 111, or ENS 101, or GEO 101; POL 102 or SOC 105
DEC: F
SBC: SBS+
3 credits

SBC 320: Sub-Saharan Africa: Geography, Cultures, and Societies
This course presents a broad perspective on Sub-Saharan Africa, a region of sharp geographic, cultural, and economic contrasts. The legacy of the region's triple heritage (indigenous, Islamic, and European) is presented as a framework for understanding the complexity and diversity of contemporary Sub-Saharan Africa in terms of distribution of languages, religions, ethnicity, family relations, and governance systems. The influence of globalization, migration, HIV/AIDS, conflicts, population growth, and socioeconomic development policies on modern Sub-Saharan African are discussed.

Prerequisite: Junior or Senior Standing
DEC: J
SBC: SBS+
3 credits

SBC 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.

Prerequisite: WRT 102
Advisory Prerequisite: SBC 203
DEC: G
SBC: HFA+, WRTD
3 credits

SBC 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.

Prerequisite: WRT 102
Advisory Prerequisite: SBC 203
DEC: G
SBC: HFA+, WRTD
3 credits

SBC 330: Extreme Events in Literature
A course that examines the depiction of extreme events (both natural and human-related) in literature, journalism, art, and film, with special emphasis paid to the extended political and social issues that are raised by the events in question.

Prerequisite: WRT 102
Advisory Prerequisite: SBC 203
DEC: G
SBC: HFA+, WRTD
3 credits

SBC 331: City, Suburb, Sprawl
A course that examines the depiction of extreme events (both natural and human-related) in literature, journalism, art, and film, with special emphasis paid to the extended political and social issues that are raised by the events in question.

Prerequisite: WRT 102
Advisory Prerequisite: SBC 203
DEC: G
SBC: HFA+
3 credits

SBC 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.

Prerequisite: SBC 117
SBC: STEM+
3 credits

SBC 401: Integrative, Collaborative Systems Studies
Problem-based capstone course.

Prerequisite: U3 or U4 status
SBC: ESI
3 credits

SBC 475: Undergraduate Teaching Practicum
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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

**SBC 476: Undergraduate Teaching Practicum II**

Work with a faculty member as an 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