ENVS 120-000: Human and Natural Ecology
(3 credits)

MWF 11:00am - 11:50am Brown, Carl

Course Description:
Introduction to the study of the relationship between humans and the environment. Topics include general ecology, resources, pollution, biodiversity, global change, and health, economics, ethics and law as related to environmental studies.

Designed for non-majors.

Does not fulfill ENVS major or minor requirements.

TEXTBOOK (recommended):
ENVS 120-001: Human and Natural Ecology  
(3 credits)  

MWF 1:00pm - 1:50pm Room: TBD Instructor: TBD

Course Description:
Introduction to the study of the relationship between humans and the environment. Topics include general ecology, resources, pollution, biodiversity, global change, and health, economics, ethics and law as related to environmental studies.

Designed for non-majors.

Does not fulfill ENVS major or minor requirements.

TEXTBOOK:  
TBD
ENVS 131-000: Introduction to Environmental Studies  
(5 credits)

MTTh 10:00am - 11:15am  Room: TBD  Gunderson, Lance & Hall, Anne

Lab sections:
   Monday - 2:00-5:00 (MSC W501)
   Tuesday - 2:30-5:30 (MSC W501)

COURSE DESCRIPTION:
An introduction to the concepts and methods of environmental sciences. Topics include principles of ecosystem function, impacts of the human population on the environment, systems of change, biological diversity, biogeochemical cycles, energy resources, water supply and use, air and water pollution, soils, agriculture, and waste management. Students will be introduced to relevant theories from physical sciences, ecology, economics, political science and other fields related to environmental sciences.

This course DOES NOT fulfill a GER.
This course is suitable for first year students.
Required course for ENVS majors and minors.

TEXTBOOK (required):
ENVS 131-00P: Introduction to Environmental Studies  
(5 credits) 
Community Engaged Service and Learning Focus Section  
(permission required)

MTTh 10:00am - 11:15am    Room: TBD    Gunderson, Lance & Hall, Anne
Lab section: 
Wednesday - 9:00-12:00 (MSC W501) - Permission Only

COURSE DESCRIPTION:
An introduction to the concepts and methods of environmental sciences. The lab associated with this section of 131 will engage in community based service and learning that will require practical application of theories, methods and concepts learned in this course. Topics include principles of ecosystem function, impacts of the human population on the environment, systems of change, biological diversity, biogeochemical cycles, energy resources, water supply and use, air and water pollution, soils, agriculture, and waste management. Students will be introduced to relevant theories from physical sciences, ecology, economics, political science and other fields related to environmental sciences. This course is suitable for first year students.

This course DOES NOT fulfill a GER.
Required course for ENVS majors and minors.
This section of ENVS 131 and associated Lab is permission only due to its special community-engaged learning focus.

TEXTBOOK (required):
ENVS 190: Freshman Seminar: Environmental Studies
How to Interpret Behavior You Do Not See
(3 credits)

MWF 1:00pm - 1:50pm  MSC - W507  Martin, Anthony
Same as NBB: 190

COURSE DESCRIPTION:
The purpose of this class is to examine how behavior can be interpreted reliably without actually witnessing it, which tests (and sometimes falsifies) the conventional wisdom of “seeing is believing.” Inference will be as a scientific methodology where students describe the products of behavior in order to interpret the processes of behavior, which in some cases provides much more detail about an organism’s behavior than if the behavior had been observed. Primary emphasis will be on how to track animals (including humans) in both natural and human-made settings, but will also include problem-based learning in paleontology and forensic methods. Fiction and depiction of inferential reasoning used to interpret behavior (such as portrayed by Sherlock Holmes) will provide examples of the long history of this form of science in the popular imagination. Environmental factors and how they influence behavior of both plants and animals is a key part of interpreting unwitnessed behavior; accordingly, the vast majority of classes will be conducted outdoors, with several weekend field trips scheduled.

TEXTBOOKS (required):
ENVS 222: Evolution of the Earth with Lab
(4 credits)

MWF 10:00am - 10:50am Room: TBD Martin, Anthony
Lab section: W 2:30-5:30

COURSE DESCRIPTION:

An overview of the origin, development, and evolution of the Earth, highlighting the intersections of geological and paleontological evidence with the theories of plate tectonics and evolutionary biology, respectively. Particular emphases will be placed on: the co-evolution of the atmosphere and biosphere; the geology of North America; and how environmental change of the pre-human past can be used to understand modern change. The lab will concentrate on reading and interpreting geologic maps, diagrams, rocks, fossils, and quantitative methods. May have one weekend field trip scheduled as a substitute for the equivalent of several lab sessions.

May be used to satisfy an Intermediate Earth Science course requirement and Upper-level Lab requirement for ENVS majors/minors.

TEXTBOOK (required):
ENVS 227W: Environmental Policy
(4 credits)

TTh 8:30am - 9:45am    MSC - W507    Yandle, Tracy

COURSE DESCRIPTION:
This is an intermediate course designed to introduce you to the complexity of issues and concepts surrounding American Environmental policy. This course will begin by putting environmental policy in an historical perspective, and then briefly discuss the basics of public policy analysis, before moving on to current environmental policy issues. This course is writing intensive, and focused on developing a strong, concise professional writing style.

May be used to fulfill an Intermediate Social Science and Policy requirement for ENVS majors or an Upper Level Elective.

TEXTBOOKS (required):
ENVS 240: Ecosystem Ecology
(3 credits)

TTh 2:30pm - 3:45pm      MSC - W507      Gunderson, Lance

COURSE DESCRIPTION:
Overview of ecosystem ecology, including dynamics of large-scale systems, landscape ecology, ecosystem structure and function. Topics in the course will include: methods of ecosystem analysis, energy flow, nutrient cycling, community dynamics, issues of scale, models and ecosystem properties.

May be used to fulfill an Intermediate Ecology/Conservation requirement for ENVS majors or an Upper Level Elective.

TEXTBOOK (required):
ENVS 247: Ecology  
(3 credits)

MWF 1:00pm - 1:50pm  Room: TBD  Beck, Christopher W.

COURSE DESCRIPTION:
This course provides an overview of the principles of ecology and the study of relationships between organisms and their environment. Processes and properties of individuals, populations, communities, and ecosystems will be emphasized. Lectures will emphasize active and collaborative learning. Ecology ties in all other branches of Biology (e.g., evolution, behavior, physiology, and genetics) by examining biological processes in the context of the environment in which organisms live and have evolved. There is also a separate 2 credit-hour lab (BIOL 247L/ENVS 247L or BIOL 247LW/ENVS 247LW) associated with this class. The Lab is not required.

TEXTBOOK:

LAB Sections (3 credits):

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>2:30pm - 5:30pm</td>
<td>1462 Clifton Rd 119</td>
</tr>
<tr>
<td>Th</td>
<td>2:30pm - 5:30pm</td>
<td>1462 CR 109</td>
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This is the laboratory portion of the Ecology class. Field studies will be conducted in various natural areas in Georgia, including a weekend trip to the mountains. Pre- or corequisite: Biology/ENVS 247. (This course, taken together with Biology 247, meets the upper-level laboratory requirement for the biology major and fulfills the Writing Requirement for the GERs.)
ENVS 250: Fundamentals of Cartography & GIS  
(4 credits)

M  1:00pm - 2:50pm   Room: TBD   Page, Michael
W  1:00pm - 4:00pm   Room: TBD

COURSE DESCRIPTION:
An introduction to the study and design of digital maps and the use of geographic information systems (GIS) as a problem-solving tool for geographic analysis. Course lectures will focus on fundamental concepts and applications of GIS, data collection and processing, cartographic design techniques, and trends in geospatial technologies. Course labs focus on learning ESRI ArcGIS mapping software, topographic map reading and analysis, field methods and global positioning systems (GPS), and GIS project design.

May be used to fulfill an ENVS Elective and Upper Level Lab requirement.

TEXTBOOK (required):
TBD
ENVS 299: Fundamentals of ENVS Research
(1-8 credits)

COURSE DESCRIPTION:
This individual study course provides a means for ENVS students to learn foundational skills for research in a field of environmental science under the direct supervision of an ENVS faculty member. The course is intended as a stepping stone to more advanced research work. ENVS majors only.

Does NOT fulfill an ENVS Major or Minor requirement.

DEADLINE for Fall 2014 enrollment application: Last day of classes Spring 2014.
- Most appropriate for Sophomores.
- Interview with and permission of faculty instructor required.
- Completed ENVS Individual Study contract form, signed by instructor, is required for enrollment; See instructor, ENVS Blackboard site, or ENVS coordinator for form
- Students are responsible for enrolling in the correct number of credit hours, as approved in their contract form, for the semester.
- Questions regarding enrollment? Please contact the ENVS Undergraduate Coordinator Stefanie Pierce (stpierc@emory.edu)
ENVS 321: Geology and Human Health
(3 credits)

TTh 1:00pm - 2:15pm  Room: TBD  Size, William

COURSE DESCRIPTION:
A new way of looking at the interaction between natural geologic processes, such as volcanic eruptions, groundwater, earthquakes, and human health on a scale from global to your own body. Topics include toxicology, epidemiology, physiology, biogeochemical cycling, natural hazards, forensic geology, geomedicine, nutrition, and pollution. Student presentations on subjects such as cancers, breathing disorders, neurotoxins, and heavy metals and their connection to the natural environment. Seminar format.

May be used to satisfy an Upper Level Elective requirement for ENVS majors/minors.
ENVS 329: Religion and Ecology  
(4 credits)

MW 8:30am - 9:45am    Room: TBD    Patterson, Barbara

COURSE DESCRIPTION:  
Historical, philosophical, and ethical relationships between religion and ecology;  
other dimensions include Eastern thought, ecofeminism, animal rights, and literary  
nature writers.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and  
minors.
ENVS 344: American Environmental History
(3 credits)

MWF 12:00pm - 12:50pm  Room: TBD  Allitt, Patrick

COURSE DESCRIPTION:
History of the relationship between the American people, land, weather, and natural resources, with special attention to the environmental movement since 1960.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.
ENVS 345: Conservation Biology  
(3 credits)

TTh 1:00pm - 2:15pm   Room: TBD   Thomas Gillespie and Lance Gunderson

COURSE DESCRIPTION:

This course focuses on the conservation of biodiversity and introduces students to ways that ecological and evolutionary principles can be used to conserve and protect species and ecosystems at risk. Specific topics include the causes and consequences of biodiversity, systematics and endangered species, the demography and genetics of small populations, invasive species, habitat loss and fragmentation, design of reserves, and restoration ecology.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.

TEXTBOOK (required):
ENVS 350W: Env Thought: Ethics, Phil. & Issues
(4 credits)

TTh 10:00am - 11:15am    Room: TBD    Wegner, John

COURSE DESCRIPTION:
This course is designed to expose students to the philosophical and ethical dimensions of human-nature relationships. This interactive course explores major trends in environmental thought and ethical dimensions of ecological relationships—between humans and nonhuman nature—with particular attention to varying conceptions of nature, health, and environmental justice.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.

TEXTBOOKS:
None
ENVS 359: Ecology & Evolution of Disease
(3 credits)

W 4:00pm - 6:45pm   Room: TBD   Gillespie, Thomas

COURSE DESCRIPTION:
From plagues of prehistory to pandemics of disease emergence today, pathogens have played a central role in our existence. This course will provide insights into why we get sick and how we heal by examining human disease within the context of ecology and evolution. May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors. Required for BS/MPH program students. May be used to fulfill an Intermediate Ecology/Conservation requirement for ENVS majors or an Upper Level Elective.

TEXTBOOKS (required):
ENVS 370A: Community Building & Social Change 1
(3 credits)

MW 11:30am - 12:45pm    Candler Library 101    Rich, Michael

COURSE DESCRIPTION:
Open only to undergraduate students by permission of the instructor. Additionally, this course is required for all students seeking to apply for the fellowship in Community Building and Social Change.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.
ENVS 385-003: Environmental Studies: Mineralogy & Petrology (3 credits)

TTh 10:00am - 11:15am  MSC - W501  Size, William

COURSE DESCRIPTION:
The course is mainly intended as an intermediate course for ENVS students and others interested in the origin and history of earth materials. The first part, Mineralogy, will deal with the description, identification and classification of minerals using symmetry, physical and optical properties. It will also include the genesis of minerals, mining and their use in society. The second part, Petrology, will concentrate on the main rock-forming minerals in the crust of the Earth and the petrogenesis of igneous, metamorphic and sedimentary rocks. The rock cycle will be emphasized along with the process of weathering and soil production.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.

TEXTBOOK (required):
ENVS 385-005: Environmental Studies: Global Change Sciences
(3 credits)

TTh 11:30am - 12:45pm   Room: TBD   Saikawa, Eri

COURSE DESCRIPTION:
This course is designed to introduce students to both science and policy of the three important global environmental problems: 1) air pollution; 2) stratospheric ozone depletion; and 3) climate change. Students will learn the atmospheric science behind these three issues as well as the environmental policy/politics theories that have been used to solve these problems.

Pre-requisites: CHEM 141 & 142, PHYS 141, MATH 115 & 116

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.

TEXTBOOK (required):
1. Introduction to Atmospheric Chemistry. Daniel Jacob. 1st Edition. 1999
ENVS 385-007: Environmental Studies: Ecology of Tibet
(3 credits)

MW 10:00am - 11:15am    MSC - W507    Wegner, John

COURSE DESCRIPTION:
In this course, the environment of Greater Tibet, will serve as a case study to explore and apply general ecological principles. After reviewing basic ecological concepts, the course will examine the natural ecology of Tibet, the ecological role of native inhabitants in the major ecosystems, the current environmental challenges faced in Tibet, the vulnerability of both traditional wisdom and Tibetan ecology. The course will consider the relationship between environmental harmony and Tibetan philosophical worldview, and, furthermore, the role indigenous wisdom can play in a continuously more modern and globalized world.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.

TEXTBOOK:
None
ENVS 390R: Seminar on Environmental Issues
(2 credits)

M 4:00pm - 5:30pm       Room: TBD       Kitron, Uriel

COURSE DESCRIPTION:
Students will attend the bi-weekly Environmental Studies Departmental Seminar, which features speakers from within and outside the University. They may also attend selected academic lectures or seminars outside the Department. During weeks without seminars students will present group projects on the previous week’s speaker. Student will write brief synopses and essays based on these papers and talks.

ENVS majors only.

Required course for ENVS majors. Recommended for Junior and Senior class level.

Enrollment by permission of instructor only. Contact: Stefanie Pierce: stpierc@emory.edu
ENVS 399: Intro to Independent Research  
(1-8 credits)

COURSE DESCRIPTION:
In this individual study course research skills are developed and refined under the direct supervision of an ENVS faculty member. ENVS majors only.

DEADLINE for Fall 2014 enrollment application: Last day of classes Spring 2014.

Pre-req for ENVS 499
• Interview with and permission of instructor required.
• ENVS Individual Study contract form required for enrollment. See faculty instructor, ENVS Blackboard site or ENVS coordinator for form.
• Students are responsible for enrolling in the correct number of credit hours, as approved in their contract form, for the semester.
• Questions regarding enrollment? Please contact the ENVS Undergraduate Coordinator Stefanie Pierce (stpierc@emory.edu )
ENVS 442W: Ecology of Emory Univ w/Lab
(5 credits)

TTh 1:00pm - 2:15pm    Room: TBD    Wegner, John

LAB:    T  2:30pm - 5:30pm    Room: TBD - W307C

COURSE DESCRIPTION:
This course will use ecological concepts to investigate questions (challenges) on the Emory campus. The course will combine lectures with laboratory exercises designed to elaborate on lecture material and to give students a hands-on experience in the application of concepts to the field setting. The course will focus on the natural environment of campus. “Local” field course option.

Fulfills an Upper Level Elective and Field Course or Upper Level lab requirement for ENVS majors.

Pre-requisite: students must have completed a 200 level ecology course, i.e. ENVS 232, ENVS 240 or ENVS/BIO 247

TEXTBOOK:
None
ENVS 460: Research Design & Practice
(4 credits)

TTh 2:30pm - 3:45pm    MSC - W502    Vazquez Prokopec, Gonzalo

COURSE DESCRIPTION:
This course will provide the necessary skills and support for students to conduct research in a field of environmental studies through a series of lectures and engaged learning.

May be used to fulfill an Upper Level Elective requirement for ENVS majors and minors.

TEXTBOOK:
TBD
ENVS 491: Service Learning Course in ENVS  
(4 credits)

Day/Time: FRIDAYS 1-5PM    Sweeney-Tookes, Jennifer

Local Foods and Georgia Seafood: Service Learning

Course Description:
This course focuses on the significance of local foods within the global food system, and their impact on people and the environment. This section of 491 will concentrate on Georgia seafood and inland local foods communities, addressing the interrelationships between food, nutrition, community health, economic development, supply of and demand for local foods. We will work with coastal Georgia Fishers, local farm-to-table restaurant buyers, Atlanta-area farmers markets, and patrons of CSAs (Community Supported Agriculture) to determine the feasibility of establishing direct marketing options in Atlanta for local Georgia shrimp and fish. The class will explore the problems and potential solutions relating to topics like sustainable foods, global agriculture and aquaculture, organic and local foods, and seafood, and will incorporate case studies from around the world, documentary films, guest speakers, and involvement in a Georgia-based research project.

This course is designed to give students the opportunity to apply the knowledge they have accumulated during their undergraduate experience at Emory, and students from diverse departments are encouraged to participate. We welcome those with experience in anthropology, business, GIS, graphic and visual arts, marketing, sociology, and other areas of practice. Students will contribute to a class project in collaboration with food producers and members of the local foods communities in Atlanta. This project will allow students to apply theories and concepts learned in this course and other classes to a practical situation. We will incorporate various methodologies, such as surveys, interviews, participant observation, and market assessment, to determine the potential of the local foods markets in Atlanta, and the possibility of creating new markets for Georgia seafood. Students can apply skills learned across the disciplines, including analyzing a group’s assets, managing a project, assessing the most appropriate business model for this situation, working cooperatively with a research team, creating educational materials for distribution, and presenting material to an audience beyond the classroom. Permission of instructor required.

May be used to satisfy the Individual Study requirement for ENVS majors, and may be repeated during the spring semester. Textbook: TBD
ENVS 494: Individual Research in ENVS
(1-8 credits)

COURSE DESCRIPTION:
In this individual research class, student research projects are developed and completed with one-to-one ENVS faculty guidance. This course is intended for students who have not taken ENVS 299, ENVS 399 or similar individual research classes. Interview with and permission of instructor and completed ENVS Individual Study contract form, signed by faculty instructor, are required for enrollment. ENVS majors only. Fulfills Independent Study Requirement for ENVS majors (4 credit hours required).

DEADLINE for Fall 2014 enrollment application: Last day of classes Spring 2014.

• Course open only via interview and application with instructor.
• Completed ENVS Individual Study contract form, signed by faculty instructor, is required for enrollment. See instructor, ENVS Blackboard site, or ENVS coordinator for form.
• Students are responsible for enrolling in the correct number of credit hours, as approved in their contract form, for the semester.
• Questions regarding enrollment? Please contact the ENVS Undergraduate Coordinator Stefanie Pierce (stpierc@emory.edu)
ENVS 495: Honors Research  
(1-8 credits)

COURSE DESCRIPTION:  
Honors Research. Permission of honors coordinator is required. Course is restricted to students who are accepted into the departmental honors program. Students may register for a writing-intensive section (Environmental Studies 495WR) to fulfill a post-freshman writing requirement.

Does NOT count for focus area or Elective credit.

May be used to fulfill ENVS Independent Study requirement.  
• ENVS majors only  
• Permission of ENVS Honors Coordinator, Anthony (Tony) Martin required: geoam@emory.edu  
• 3.5 GPA or higher is required for application to Honors Program
ENVS 497: Undergraduate Internship
(4 credits)

COURSE DESCRIPTION:

- ENVS Majors Only.
- Must have pre-approved internship to enroll in class. See ENVS WEBSITE
- Application form available on ENVS blackboard site or from department.
- For more information contact ENVS internship coordinator Tracy Yandle.
- ENVS independent study course option (must be approved for at least 4 credit hours).
ENVS 498: Individual Directed Reading  
(1-8 credits)  

COURSE DESCRIPTION:

Variable credit. Interview and application with ENVS faculty instructor required for enrollment. This course allows students to work individually with a faculty member to explore subjects of mutual interest on specific topics not normally offered in courses at Emory. A completed ENVS Individual Study contract form, signed by the faculty instructor, is required for enrollment. Students are responsible for enrolling in the correct number of credit hours, as approved in their contract form, for the semester. **With permission of faculty instructor, students may register for a writing intensive section.**  
ENVS Majors only.

May be used to fulfill ENVS Independent Study requirement (4 credit hours required).

**DEADLINE for Fall 2014 enrollment application: Last day of classes Spring 2014.**

- Course open only via interview and application with instructor.  
- Completed ENVS Individual Study contract form, signed by faculty instructor, is required for enrollment. See instructor, ENVS Blackboard site, or ENVS coordinator for form.  
- Students are responsible for enrolling in the correct number of credit hours, as approved in their contract form, for the semester.  
- Questions regarding enrollment? Please contact the ENVS Undergraduate Coordinator Stefanie Pierce (stpierc@emory.edu)
ENVS 499: Advanced Independent Research
(1-12 credits)

COURSE DESCRIPTION:

Variable credit. Advanced independent research conducted under the direction of an ENVS faculty member. ENVS Majors only. Note: With approval from faculty instructor, students may register for a writing-intensive section.

DEADLINE for Fall 2014 enrollment application: Last day of classes Spring 2014.

Pre-req: ENVS 399

• Permission of faculty instructor required.
• Completed ENVS Individual Study contract form, signed by faculty instructor, is required for enrollment. See instructor, ENVS Blackboard site, or ENVS coordinator for form.
• May be used to satisfy Independent Study requirement for ENVS majors (4 credit hours required).
• Questions regarding enrollment? Please contact the ENVS Undergraduate Coordinator Stefanie Pierce (stpierc@emory.edu)