



Undergraduate Course Syllabus

BIO 315: Ecological Principles and Field Methods

Center: Online

Course Prerequisites

CE: ENV 101 or SCI 219; UC: ENV 101, ENV 219 or SCI 219

Course Description

This course introduces students to the principles of ecology and practical methods used in the field. Students will explore theoretical topics in the ecological systems including the level of the population, community and ecosystem; energy flow and biogeochemical cycles; and the concept of sustainability. Students will read literature and conduct research projects in the field and will use critical thinking to evaluate research, design studies, present findings and debate on the issues.

Course Outcomes

- Explain and describe ecological concepts as they apply to the natural world such as assessing the interrelationships of living and non-living factors
- Demonstrate the ability to apply scientific methods to solving problems and using the proper methods of observation and recording of scientific data
- Describe ecological relationships at the level of the organism, population, community, and ecosystem
- Critically evaluate the significance and validity of scientific research on ecology and human societies
- Integrate their knowledge and understanding of how their environment works, especially in regard to understanding the role of humans in a biological context

Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through the [SNHU Online Bookstore](#) rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

Elements of Ecology

Smith & Smith

Pearson

Ninth Edition

2015

ISBN: 978-0-321-99491-2

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	7	30	210
Quizzes			
Module One	1	5	5
Modules Two and Three	2	15	30
Modules Four–Seven	4	10	40
Module Eight Quiz	1	30	30
Final Project			
Milestones	3	95	285
Final Submission	1	400	400
			Total Course Points: 1,000

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Undergraduate

Grade	Numerical Equivalent	Points
A	93–100	4
A-	90–92	3.67
B+	87–89	3.33
B	83–86	3
B-	80–82	2.67
C+	77–79	2.33
C	73–76	2
C-	70–72	1.67
D+	67–69	1.33
D	60–66	1
F	0–59	0
I	Incomplete	
IF	Incomplete/Failure *	
IP	In Progress (past end	

Grade	Numerical Equivalent	Points
	of term)	
W	Withdrawn	

* Please refer to the [policy page](#) for information on the incomplete grade process.

Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

Weekly Assignment Schedule

All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	Introduction <i>Elements of Ecology</i> , Chapter 1 1-1 Discussion: Scientific Research 1-2 Module One Quiz 1-3 Field Exercise 1 (Optional, Ungraded) 1-4 Review: Final Project
2	The Physical Environment <i>Elements of Ecology</i> , Chapters 2–4 2-1 Discussion: Climate Change Impacts on Oceans 2-2 Module Two Quiz 2-3 Final Project Milestone One: Data Exploration and Preparation for Analysis
3	Adaptations and Natural Selection <i>Elements of Ecology</i> , Chapters 5– 7 3-1 Discussion: Adaptations and Natural Selection 3-2 Module Three Quiz 3-3 Field Exercise 2 (Optional, Ungraded)
4	Populations <i>Elements of Ecology</i> , Chapters 8 and 10 4-1 Discussion: Invasive Species 4-2 Module Four Quiz 4-3 Final Project Milestone Two: Quantitative and Graphical Analysis

Module	Topics and Assignments
5	Species Interactions, Part I <i>Elements of Ecology</i> , Chapters 12 and 13 5-1 Discussion: Interspecific Competition 5-2 Module Five Quiz 5-3 Field Exercise 3 (Optional, Ungraded)
6	Species Interactions, Part II <i>Elements of Ecology</i> , Chapters 14 and 15 6-1 Discussion: Ecological Changes and Disease Transmission 6-2 Module Six Quiz 6-3 Final Project Milestone Three: Results, Discussion, and Literature Cited Sections
7	Community Ecology <i>Elements of Ecology</i> , Chapters 16 and 17 7-1 Discussion: Restoration Ecology (Optional, Ungraded) 7-2 Module Seven Quiz 7-3 Final Project Submission
8	Ecological Biogeography <i>Elements of Ecology</i> , Chapters 20, 21, 22, and 27 8-1 Discussion: Course Overview 8-2 Module Eight Quiz

Attendance Policy

Online students are required to submit a graded assignment/discussion during the first week of class. If a student does not submit a graded assignment/discussion during the first week of class, the student is automatically dropped from the course for non-participation. Review the [full attendance policy](#).

Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the [full late assignment policy](#).

SNHU Student Handbook

Review the [student handbook](#).

ADA/504 Compliance Statement

In accordance with Section 504 of the Rehabilitation Act of 1973, Title III of the Americans with Disabilities Act (ADA) of 1990, and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008, Southern New Hampshire University does not discriminate on the basis of disability, including intellectual disability, in admission, treatment, or access to its programs or activities, nor does it discriminate in employment in its programs or activities.

The university prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. A disability is a condition or impairment that impacts a “major life activity” or “major bodily function.”

- **Major life activities** include, but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working.
- **Major bodily functions** include, but are not limited to, functions of the immune system, normal cell growth, and digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions. Disabilities include physical, medical (including pregnancy), mental health, and learning needs.

At the beginning of each term, or as soon as you become aware of a disability or accessibility concern, we encourage you to contact the Online Accessibility Center (OAC) to discuss accommodations for which you may be qualified. Reasonable accommodations are established through an interactive process between the student and the OAC.

Note that accommodations are not retroactive and that disability accommodations are not provided until acceptable documentation of a disability and its impact is received and an accommodation letter has been processed. If you are unsure whether your condition qualifies as a disability or accessibility concern, please contact the OAC for determination.

Contact Information:

Online Accessibility Center

Phone: 866-305-9430

Email: oad@snhu.edu

For questions concerning support services, documentation guidelines, or general disability issues, please visit the [Online Accessibility Center](#) website.

If you feel you have been denied appropriate disability-related accommodations, including appropriate auxiliary aids and services, you may file a grievance as described in the ADA/504 Grievance Policy found on the [Disability and Accessibility Services](#) website.

Academic Honesty Policy

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the [full academic honesty policy](#).

Copyright Policy

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the [full copyright policy](#).

SNHU Withdrawal Policy

Review the [full withdrawal policy](#).

Southern New Hampshire University Policies

More information about SNHU policies can be found on the [policy page](#).

Student Work Samples

For the purpose of continuous improvement of our educational training, Southern New Hampshire University may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you would like to withdraw permission for use of your work, please complete the [Student Work Sample Survey](#).