

Syllabus for SMGT 310 Ecology for Sustainable Management

NOTE: This syllabus document contains the basic information about this course. The most current syllabus is available in the course.

Course Description

This course is about the interrelationships of organisms with each other and their environments and investigates the composition and dynamics of populations, communities, ecosystems, landscapes, and the biosphere with an emphasis on sustainability.

Prerequisite(s)

Introductory Biology

Course Outcomes

Upon completing this course, you will be able to do the following:

- Develop as a scientific thinker and writer.
- Interpret data within an ecological context.
- Create a strong foundational ecological knowledge base.
- Understand how ecological systems respond to human perturbations.
- Make recommendations for sustaining natural and social systems.
- Describe the organization of ecological systems at multiple levels.
- Define sustainability from an ecological system perspective.
- Explain how physical and biological interactions determine the dynamic nature of ecological systems over space and time.
- Explain how human activities disrupt or sustain these interactions.
- Demonstrate an understanding of the interplay of ecology and evolution, through natural selection and adaptation.
- Provide examples of how evolutionary history provides constraints and opportunities for sustainability.
- Diagram the flow of energy through an ecosystem and the cycling of matter and nutrients within an ecosystem.
- Explain how human activities can shift ecosystems between alternate states.
- Discuss the implications of landscape spatial pattern for sustainability.

- Describe the factors responsible for seasons, major weather patterns, and global climate zones.
- Describe critical aspects of human interaction with the biosphere that contribute to its sustainability or degradation.
- Demonstrate knowledge of the scientific process and how it is applied in ecology.
- Effectively interpret and critically analyze ecological data.

Course Requirements/Components

You must regularly check your registered email during the course term.

Quizzes

The quizzes are intended to keep you current with the material.

Discussions

You will be asked to submit answers to problems, discussion comments, or short videos and apply your knowledge.

Response Assignments

These assignments offer an opportunity to demonstrate mastery of material in an alternative manner.

Case Studies

Each case will follow a similar format but will apply your knowledge to a novel situation. In order to maintain individual accountability and enhance participation within group activities, groups will complete peer evaluations.

Grading

Grades will be determined as a percentage of total points:

Quizzes (9 at 15 points each)	135 points
Discussions (10 at 10 points each)	100 points
Response Assignments (6 @ 15 points each)	90 points
Case Study 1: Part 1: 50 points; Part 2: 25 points; peer evaluation	75points
Case Study 2: Part 1: 50 points; Part 2: 25 points; peer evaluation	75 points
Case Study 3 (PowerPoint presentation)	50 points
Total	525

Your grades will be posted in the course. Objections to grades must be sent via email ***within 1 week*** of the grade's posting; otherwise the instructor will not consider changing it.

Percent	Letter Grade
>93%	A
91-93%	A-
88-90%	B+
85-87%	B
82-84%	B-
79-81%	C+
76-78%	C
73-75%	C-
60-72%	D+
67-69%	D
65-67%	D-
<60%	F