Syllabus for SMGT 310 Ecology for Sustainable Management

Course Description

Prerequisite: Introductory biology course

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.

Course Learning Objectives

Goals

1. Develop as a scientific thinker and writer.
2. Interpret data within an ecological context.
3. Create a strong foundational ecological knowledge base.
4. Understand how ecological systems respond to human perturbations.
5. Make recommendations for sustaining natural and social systems.

Objectives

- 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 Materials

Information on course materials can be found in the textbook section of the SMGT website.

Course Requirements

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.

Final Exam
The exam will be a series of short essays.

Grading Policy

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 (4 @ 15 points each)	60 points
Case Study 1: Part 1: 50 points; Part 2: 25 points; peer evaluation: 5 points	80 points

Case Study 2: Part 1: 50 points; Part 2: 25 points; peer evaluation: 5 points	80 points
Case Study 3 (PowerPoint presentation)	50 points
Final Exam	75 points

Your grades will be posted in D2L. 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

Late assignments will be downgraded 20% of their value each class day they are overdue, unless a prior arrangement is made with the instructor.