



Session: Fall 2009

Class Dates: Sept. 15 - Dec. 15

Instructor: Bob Schodorf
Tuesday, 6-9:00 p.m.

Classroom: TBD

Day/Time:

Contact Info: schodorf@lakemichigancollege.edu

Phone: (269) 927-8100 ext 5075

Required text(s): Miller, G.T. & Scott Spoolman 2008. Environmental Science: Problems, Concepts, & Solutions. 12th Ed. Thomson/Brooks Cole Publishing. (ISBN 0-495-38337-6)
Annual Editions: Environment 09/10. McGraw Hill Publishing (ISBN 978-0-07-351549-6)
A Writers Resource: A Handbook for Writing and Research. McGraw Hill Publishing.

University Mission

The mission of Siena Heights, a Catholic University

founded and sponsored by the Adrian Dominican Sisters, is to assist people to become more competent, purposeful, and ethical through a teaching and learning environment which respects the dignity of all.

Department / Division Learning Outcomes

Division/Department Outcomes:

Students will address the following four Learning Outcomes for General Education in this course. The first three outcomes are from the Modes of Learning category, and the fourth is from the Social Responsibility category.

- 1) Students will demonstrate their ability to research, comprehend, analyze, synthesize, and evaluate ideas.
- 2) Students will demonstrate the application of methodology of different disciplines to ideas.
- 3) Students will demonstrate problem solving skills and creative expression in a variety of applications. These three outcomes will be addressed in laboratory experiments involving the use of scientific method and field trips, and in class discussion involving critical thinking strategy.
- 4) Students will articulate and act upon their social and environmental relationships as citizens of the world. This outcome is addressed throughout the entire course, and particular in discussions of assigned readings.

Other items:

- Course description
- Learning strategies – format of course
- Assessment strategies
- Grading policy and scale
- Attendance policy
- Academic dishonesty policy (add statement or state “see page 169 of catalog”)
- Disability statement (add statement or state “see page 183 of catalog”)
- Course schedule
- Assignment list
- Laboratory Work

Course Description

Biology 301: This course studies basic biological and ecological concepts and their relationship to current environmental problems. This class involves both lecture/discussion and laboratory work.

Learning Strategies

Students are expected to read the assigned chapters/articles prior to class time. Class time will be spent discussing the assigned material. Meaningful discussion and problem solving can only occur if assigned chapters/articles are read. Take notes on the assigned chapters/articles as you read so that you can participate in the discussion.

Assessment Strategies

Students will be given 4 exams, which cover assigned text chapters. In addition, students will hand in a one page summary of each of the 20 assigned articles in Annual Editions. Each exam is worth 100 points (4 exams X 100 points = 400 points). Summary articles are worth 5 points (5 points x 20 articles = 100 points.) Thus the student’s final grade is figured on the basis of 500 points using the grading scale below.

Grading Policy and Scale

500-450 points = A

449-400 points = B

399-350 points = C

349-300 points = D

299 points and below = E

Attendance Policy

All students are expected to attend class sessions unless prior arrangements have been made with the instructor. Students with poor attendance usually receive poor or failing grades.

Academic Dishonesty Policy

See page 166 of the college catalog.

Disability Statement

See page 181 of the college catalog.

Course Schedule

<u>Topic</u>	<u>Miller Text Chapt.</u>
Environmental Problems, Their Causes, Sustainability	1
Science, Matter, and Energy	2
Ecosystems and How They Work	3
Evolution & Biodiversity; Climate & Biodiversity	4,5
Community & Population Ecology	6
First Exam: Chapters 1-6; Assigned Articles 6,21,25	
Applying Population Ecology: Human Population & Urbanization	7
Sustaining Biodiversity: The Ecosystem Approach	8
Sustaining Biodiversity: The Species Approach	9
Food, Soil, Pest Management	10
Second Exam: Chapters 7-10; Assigned Articles 7,9,18,19,20	
Water & Water Pollution	11
Energy	13
Environmental Hazards & Human Health	14
Third Exam: Chapters 11,13,14; Assigned Articles 13,15,16,17,23,26	
Air Pollution, Climate Change, Ozone Depletion	15
Solid and Hazardous Waste	16
Environmental Economics, Politics, and Worldviews	17
Fourth Exam: Chapters 15-17; Assigned Articles 1,2,4,5,11,12	

Assignment List

Pre-class assignment: For the first class meeting read **text chapters 1 & 2**

Tentative Laboratory Work

Note: labs that involve outdoor work necessitate wearing appropriate shoes for walking in the out-of-doors, mosquito repellent and appropriate clothing.

Usage of Taxonomic Key to Trees

Lake Michigan College Ecosystems Laboratory Field Trip

Grand Mere State Park Sand Dune & Aquatic Succession Field Trip

Microscopic Algae and Protozoan Water Quality Analysis Laboratory

LaMotte Water Quality Analysis Laboratory

Environmental Biology Articles

Format for Summary Articles

1. Analysis of assigned articles must be typed and approximately one page (type 12 font size) in length. Lengthy articles may necessitate more than a one page analysis. Remember each article analyzed is worth 5 points.
2. Assigned articles are to be submitted prior, or on the scheduled examination date. (example: articles 6,21,25 are due on or before the first lecture exam).
3. Use the following headings to complete your evaluation of the article.

A) **Name** – Your name

B) **Title of Article & Author(s) Name**

C) **Summary** of the major points raised by the author(s). This will be the largest section of your analysis.

D) **Article Evaluation**. Points of agreement and disagreement with the author's view. Was the article worth reading?