

Eastern Illinois University
Revised Course Proposal
BIO 2002G, Environmental Life Sciences

1. Catalog Description

- a. BIO 2002G
- b. Environmental Life Sciences
- c. 3-0-3
- d. F, S, Su
- e. Env Life Sci
- f. A study of the interrelationships of the living and non-living components of the environment, the ecology of humankind, and the interaction of humans with the environment. The course emphasizes current environmental issues and possible solutions and courses of action. Does not count towards the Biological Sciences major or minor. Credit for BIO 2002G will not be granted if the student already has credit for or registration in BIO 2092G or BIO 3850
- g. No prerequisite
- h. Fall 2006

2. Student Learning Objectives and Evaluations

- a. *Student Learning Objectives:* In accordance with the goals of general education, students will:
 - Compare and contrast issues pertaining to environmental topics. (critical thinking, speaking)
 - Analyze and interpret data as it is related to environmental studies. (critical thinking)
 - Identify differences between “progress” and “growth” from an environmental perspective. (critical thinking)
 - Describe ways that citizens can live low-impact environmental lives and still maintain a high standard of living. (critical thinking, speaking, writing)
 - Evaluate knowledge about important environmental issues and how they may be solved in a scientific, economic and political framework. (critical thinking, responsible citizens)
 - Analyze, discuss and evaluate environmental topics presented in the popular media or elsewhere. (critical thinking, global citizenship, writing and speaking effectively)
- b. *How will student achievements of the stated learning objectives be assessed?*
 - Assessment will be based on the following grading procedure (can vary with instructor):
 - Pop-quizzes (15%)
 - Short hand-in projects and problem sets (15%)
 - Three (3) Semester Exams (40%)
 - One environmental project worth (15%)
 - A cumulative final exam (15%)

	Pop quizzes (15%)	Short hand in project and problem sets (15%)	Term exams (3) and a final exam (55%)	Environmental project (15%)
Compare and contrast issues pertaining to environmental topics	X	X	X	X
Analyze and interpret data as it is related to environmental studies	X	X	X	X
Identify differences between “progress” and “growth” from an environmental perspective	X	X	X	X
Describe ways that citizens can live low-impact environmental lives and still maintain a high standard of living	X	X	X	X
Evaluate knowledge about important environmental issues and how they may be solved in a scientific, economic and political framework	X	X	X	X
Analyze, discuss and evaluate environmental topics presented in the popular media or elsewhere	X	X	X	X

- c. The course is technology-delivered
- d. Not a graduate-level course
- e. The course is writing active. Written pop-quizzes will be given on an irregular and unannounced schedule. Approximately 40% of the exams will consist of short essay questions. A written summary of a project dealing with a topic of environmental concern is required.

3. **Outline of the Course**

- a. Course outline is based on three 50-minute class meetings each week for 15 weeks
 - I. Humans in the Environment: (weeks 1-2)
 - Our changing environment
 - Solving environmental problems
 - History of conservation
 - II. The World We Live In: (weeks 3-5)
 - Ecosystems and energy
 - Ecosystems and living organisms
 - Ecosystem and the physical environment
 - III. A Crowded World: (weeks 6-7)
 - Understanding Populations
 - Facing the problem of overpopulation
 - IV. The Search for Energy (weeks 8-9)
 - Fossil Fuels
 - Renewable Energy

- V. Resources: (weeks 10-12)
 - Water: A fragile resource
 - Preserving Earth's Biological Diversity
 - Land Resources and Biodiversity
- VI. Environmental Concerns (weeks 13-14)
 - Global atmospheric changes
 - Solid and hazardous waste
- VII. Tomorrow's World: (week 15)
 - The problems we face

b. technology-delivered

4. Rationale

- a. Environmental Life Science is a science course that belongs in the Biological Sciences component of the scientific awareness segment in the General Education Curriculum. As noted in the outline, this course will help make students aware of environmental problems and possible solutions to these problems. Critical thinking is an important component of this course because it requires that students think about "tradeoffs" between the environment and human development. Similarly, students will be exposed to the incredible interrelationships that are basic to ecological principles and the impact that human development has upon these interrelationships.
- b. It is a 2000 level course and that is appropriate given the course content and the level of critical thinking involved. There are no prerequisites for this course.
- c. This course is a revision of the current course Environmental Life Sciences (BIO 3002G). There are similar courses in other departments. For example, there is a course entitled Environmental Physical Sciences (GEL/ESC 3010G) and a Senior Seminar entitled Spaceship Earth (EIU 4003G) within the Geology/Geography Department. However, BIO 3002G emphasizes "biological" aspects of the environment whereas the other courses emphasize the physical science aspect of the environment.
- d. This course will not be required for any major or program other than General Education.

5. Implementation

- a. Faculty members to whom the course will be assigned initially: Any qualified faculty in the Department of Biological Sciences
- b. Specify additional costs to students: none
- c. Text: Brennan (2005), Environment: The Science Behind the Stories (1st edition), Benjamin Cummings

6. Community College Transfer

A community college may be judged equivalent to this course

7. **Date approved by the department:** October 6, 2005

8. **Date approved by the college curriculum committee:** October 28, 2005

9. **Date approved by CAA:** December 16, 2005