1. **Catalog Description**
   a. Course level: BIO 3002G
   b. Title: Environmental Life Sciences
   c. Credit: 3-0-3
   d. Term to be offered: (F, S, Su)
   e. Short title: Env. Life. Sci.
   f. Course description: 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.
   g. Prerequisite: None
   h. The course is writing active.

2. **Student Learning Objectives**
   Students will:
   - participate in classroom discussions on environmental topics. (critical thinking, speaking)
   - analyze and interpret data as it related to environmental studies. (critical thinking)
   - be required to write in standard English on in-class quizzes and other essay questions. (writing)
   - be able to distinguish between “progress” and “growth” from an environmental perspective. (critical thinking)
   - be able to list and discuss ways that citizens can live low-impact environmental lives and still maintain a high standard of living. (critical thinking, speaking, writing)
   - acquire basic knowledge about other important environmental issues and how they may be solved in a scientific, economic and political framework. (critical thinking, citizenship, communication)
   - develop the ability to critically analyze and discuss environmental topics presented in the popular media or elsewhere. (critical thinking, global citizenship, communication)

3. **Course Outline**
   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 Crowed World: (weeks 6-7)
      - Understanding Populations
      - Facing the problem of overpopulation
   IV. The Search for Energy (weeks 8-9)
      - Fossil Fuels
      - Nuclear Energy
      - 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

4. Evaluation of Student Learning
   a. Grading Procedure (can vary with instructor):

   Pop-quizzes and hand-in projects worth 100 points
   Three (3) Exams, each worth 100 points
   One project worth 100 points
   A final exam (cumulative), worth 100 points
   Final grade based on 600 points total

   b. The course is writing active in the following manner:

   Pop-Quizzes and Hand-in Projects:
   Short quizzes will be given on an irregular and unannounced schedule. In addition, short projects, such as bringing in newspaper articles or watching and reporting on a television program and additional reading assignments will be given throughout the semester.

   Exam Format:
   Approximately 60% objective (multiple choice, matching, true/false), 40% short essay.

   Project: A project dealing with a topic of environmental concern is required. The topic for the project must be submitted by a designated date to obtain full credit. The final project is due no later than another designated date and will require a written summary. Additional materials about the project will be given at a later date.

5. Rationale
   a. Environmental Life Science is a science course and belongs in the Biological Sciences component of the scientific awareness segment in the new 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 3000 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. There are some similar courses that are found 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) found 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. Currently, EVB 3002G is required in the Environmental Biology Option of the Biological Sciences Major. It is an approved elective in the Biology concentration of the Biological Sciences major and in the Environmental Studies concentration of the Geography major. It is an approved elective in the Biological Sciences minor.

6. Implementation
   a. Faculty members to whom the course will be assigned initially: Any qualified Biological Sciences faculty
   c. Specify additional costs to students: none
   d. Term to first be offered: Spring 2001

7. Community College Transfer
   Not applicable

8. Date approved by the department: 3/24/00

9. Date approved by the college curriculum committee: 4/14/00

10. Date approved by CAA: 9/18/00

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