

Eastern Illinois University
Revised Course Proposal
BIO 1001G, Biological Principles and Issues

1. Catalog Description

- a. Course Level: BIO 1001G
 b. Title: Biological Principles and Issues
 c. Credit: 2-2-3
 d. Term to be offered: (F, S, Su)
 e. Short Title: Bio Prin. Issues
 f. Course Description: An introduction to the study of living organisms with emphasis upon an appreciation for their behavioral, functional, and structural adaptations, their diversity and relationship to the environment. In addition, strong emphasis on current issues dealing with the field of biology. Does not count toward the Biological Sciences major or minor. Credit for BIO 1001G will not be granted if the student already has credit for or registration in BIO 1091G.
 g. Prerequisite: None
 h. Course is writing active

2. Student Learning Objectives

Students will:

- develop an understanding of the thought processes and methods used by biologists through laboratory experimentation. (critical thinking)
- develop a scientific knowledge base that may be used to better understand environmental, health, and technological issues. (citizenship)
- learn how to apply critical thinking and their newfound scientific knowledge base to evaluate issues in the news and product claims in ads, so that they may become better informed citizens and consumers. (critical thinking, citizenship)
- explore ethical issues in biology related to human reproduction, genetics, and the environment. (citizenship)
- practice conveying their opinions and understanding of the subject matter through various writing active assignments including lab reports, short answer test questions, and/or other assignments. (effective writing)
- participate in class discussions and/or present oral presentations to practice effective speaking skills. (effective speaking)

3. Course Outline

Week	Lecture	Lab
1	Scientific Method	Scientific Method
2	Biological Molecules-Nutrition	Part 1 Biological Molecules
3	Biological Molecules-Nutrition (cont.)	Part 2 Biological Molecules
4	Cells; Cell Structure and Function-Pathogen Transmission (HIV), Antibiotics, Cancer	Exam #1
5	Cells (cont.)	Cells
6	Photosynthesis-Global Warming, Acid Rain,	Disease
		Transmission
7	Global Food Supply Respiration/Fermentation-Alcohol Abuse	Photosynthesis/Yeast

		Fermentation
8	Cell Division/Reproduction-Cancer, Genetic Disorders, Gender Selection, Birth Control	Exam #2
9	Genes-Gene Testing, DNA Fingerprinting, Gene Therapy, GMO's Inherited Disorders, Cloning	Reproduction
10	Genes (cont.)	DNA Fingerprinting
11	Genes (cont.)	Genetics
12	Evolution-Teaching in Schools	Exam #3
13	Ecosystems-Loss of Biodiversity, Human Population, Pollution, Ozone Loss, Old Growth Forests, Rainforests, Introduced Species	Evolution/Ecosystem
14	Ecosystems (cont.)	Food Resource Simulation
15	Ecosystems (cont.)	Discussion of Current Issues in Biology
	Final Exam	

4. Evaluation of Student Learning

- a. Four exams, weekly laboratory reports, oral presentations, class discussions and other assignments will determine the student's grade for the course.
- b. There will be written weekly laboratory reports. Exams have a writing component.

5. Rationale

- a. BIO 1001G fulfills the biological sciences component of the Scientific Awareness segment of the General Education Core. It is taught by faculty within the Biological Sciences Department and introduces students to biological concepts and issues.
- b. BIO 1001G is a freshman level course. It is an introduction to biological issues and principles. There are no prerequisites.
- c. This course is a revision of BIO 1001C and should maintain the same curriculum ID as BIO 1001C. It is not similar to any other course offered by the University. It is an issues-based presentation of several levels of biology from cellular and molecular to ecology.
- d. BIO 1001G is designed for non-Biological Sciences majors. It satisfies the General Education Core requirement for these students.

6. Implementation

- a. Faculty members to whom the course will be assigned initially: Any qualified Biological Sciences faculty
- b. Text: *Biology Concepts and Connections* by Campbell, Mitchell, Reese, 1999
- c. Specify additional costs to students: lab fee - \$10 and lab manual - \$6.50 (both costs previously approved by the President's Council)
- d. Term to first be offered: Spring 2001

7. Community College Transfer

A community college course may be judged equivalent to this course.

8. Date approved by the Department: March 24, 2000

9. Date approved by the college curriculum committee: April 14, 2000

10. Date approved by the CAA: October 19, 2000

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