COURSE INFORMATION FORM

DISCIPLINE: Biology

COURSE TITLE: General Biology

CR.HR: 5  LECT HR: 3  LAB HR: 4  CLIN/INTERN HR: 0  CLOCK HR: 0

CATALOG DESCRIPTION

Biological principles and methods applied to selected groups of living organisms and their environment.

PREREQUISITES

None

EXPECTED STUDENT OUTCOMES IN THE COURSE

Upon completion of this course, the student will be able to:

1. Demonstrate the ability to use scientific methodologies as they apply to the development of scientific experiments and the interpretation of data.

2. Apply common scientific principles to the structure and function of living organisms.

3. Demonstrate an understanding of the structure, function and importance of biological molecules.

4. Use evolutionary and genetic principles to explain the process of evolution.

5. Explain the interactions between organisms and their environment.

6. Read and critically evaluate biological information in the media.
CLASS-LEVEL ASSESSMENT MEASURES

Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written examinations (1, 2, 3, 4, 5)
2. Laboratory practical exams (2, 4)
3. Setting up lab experiments, analyzing and reporting data collected (1, 3, 4, 6)
4. Field studies (1, 2, 5)
5. Written paper using correct format and style for biological literature (1, 6)

PROGRAM-LEVEL OUTCOMES ADDRESSED

General Education Outcomes
Specify which general education outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes and assessment measures.

1. Use the scientific method to develop and test hypotheses and to draw defensible conclusions
2. Evaluate scientific evidence and argument
3. Describe and apply current theoretical explanations of the nature, organization, and evolution of living systems
4. Explain how human choices affect the earth and living systems

Occupational Program Outcomes
Specify which occupational program outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes to assessment measures.

Does not apply.
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Introduction
   A. Nature of the biological sciences
   B. Scientific methodology

II. The cell
   A. Chemical principles of life
   B. Cellular organization
   C. Cells and Energy
   D. The cell cycle

III. Ecology and the environment
   A. Abiotic structure
   B. Biotic structure
   C. Interactions
   D. The changing environment

IV. Genetics
   A. Mendelian genetics
   B. Molecular genetics
   C. Population genetics

V. Evolution
   A. Evolutionary processes
   B. Diversity of life