

Common Course Outline
Biol 108
General Biology
4 credits
The Community College of Baltimore County

Description

Investigating the Living World

Provides an overview of the basic principles of biology from an integrated perspective; includes human biology, evolution, genetics, and ecology.

4 credits: 3 lecture hours and 3 laboratory hours per week.

Prerequisite: ENGL 052, RDNG 052, MATH 081. Students may receive credit for only one of the following: BIOL 100, BIOL 108 or BIOL 110.

Overall Course Objectives

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

1. Assess basic biological questions using current scientific literature. (I, VI, 1,4,5)
2. Develop a base of biological information on which to build as current discoveries are made. (I, III, IV, VI, 1, 2, 4, 5)
3. Research current biotechnological advances in order to make decisions on moral and ethical issues. (III, IV, 2, 4, 5)
4. Apply the steps of scientific methodology. (I, III, 2)
5. Explain the functions and interrelationships of the organ systems of the human body. (I, 1, 4)
6. Describe how cell structure and cell reproduction contributes to the functions of the human organ systems. (I, 1, 4)
7. Explain ethnic diversity in the areas of genetic inheritance and disorders using Mendelian genetics. (IV, V, 4, 6)
8. Determine how one's biological past has an impact on one's future. (III, IV, V, 2, 7)
9. Discuss how humans have developed in a direct relationship with their environment. (II, 2, 7)
10. Explain the interrelationships between organisms and their environment. (V, 7)
11. Discuss the impact that humans have on the future of their environment. (II, III, IV, V, 2, 7)
12. Organize data into graphs and tables and employ basic mathematical skills to quantify data where appropriate. (III, 2, 3)

Major Topics

1. Cell structure and function
2. Interactions between organ systems
3. Response to stimuli
4. Obtaining energy
5. Reproduction
6. Transmission genetics
7. Molecular genetics
8. Evolution
9. Conservation
10. Ecology

Course Requirements (II, VII)

1. Students will prepare 3 organized notebooks containing materials from selected activities.
2. Three unit exams and one final exam will be used for evaluation.
3. A term project will be required that will include at least one of the following options: service learning, teacher observations or interviews, journal entries, periodical article reviews, web site evaluations.
4. Students will collaborate and use oral communication in the analysis of lab data.

Other Course Information

This course can be used to meet the General Education requirement of a four-credit course in the science domain for general education.

This course is recommended for students in the early childhood and elementary education curricula.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common course Outline.

Date revised: 04/04/00