

BIOL 106

Zoology

4 Credits: 3 hours lecture and 3 hours lab

Community College of Baltimore County
Common Course Outline

Description

BIOL 106 – Zoology: is a course which introduces students to animal diversity, physiology, and behavior through the lenses of evolution and ecology. Concepts of homeostasis are embedded throughout the course. Field trips to observe Maryland's animals and their habitats may be included.

Pre-requisites: ACLT 052 or ACLT 053 or (ESOL 052 and ESOL 054) and MATH 081

Overall Course Objectives

Upon completion of this course, students will be able to:

1. compare and contrast animal anatomy by analyzing and interpreting models, diagrams, and animal specimens in collaboration with other students;
2. compare and contrast physiology of various animal groups;
3. apply scientific method to questions of animal physiology or behavior;
4. explain principles of animal anatomy, physiology, and behavior as they emerge through evolutionary development;
5. use dichotomous keys to identify organisms ;
6. utilize type specimens to assist in the classification of organisms;
7. discuss the origins and evolution of the various animal phyla;
8. compare and contrast the basic ecological interrelationships among animal phyla;
9. compare and contrast mechanisms of homeostasis among animal groups;
10. apply mathematics to explain genetic changes within a population;
11. discuss the interconnections among various animal communities and human populations;
12. analyze historical, social, and/or political connections between animal use among diverse human populations;
13. discuss how different societies deal with bioconservation and introduced and invasive species;
14. use technology to identify organisms of various phyla;
15. find, evaluate, use, and cite appropriate resources to investigate questions of animal evolution, physiology, or behavior; and
16. present scientific information in written and/or oral formats.

Major Topics

- I. Fundamentals of cell biology
- II. Taxonomy, phylogeny, genetics, and evolution
- III. Reproduction and development

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For more information, see your professor's syllabus.

- IV. Mechanisms of homeostasis
- V. Major animal phyla
 - a. Unicellular organisms
 - b. Porifera
 - c. Radiate phyla
 - d. Lophotrochozoan phyla
 - e. Ecdysozoan phyla
 - f. Deuterostome phyla
- VI. Ecology and behavior
- VII. Bioconservation and ethical issues

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Three exams and a comprehensive final exam
- Two lab practical exams and/or weekly lab quizzes
- One written assignment

Lab will account for 25 to 50% of the course grade. Students must earn at least 60% in both the lab and lecture portions of the course to pass the course.

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

Other Course Information

This course is an approved 4–credit General Education course in the Biological and Physical Sciences and fulfills the laboratory requirement.

One or more assignments will infuse CCBC General Education Program outcomes and will account for a minimum of 10% of the total course grade. The assignment(s) will allow students to demonstrate at least 5 of the 7 General Education program outcomes.

Date Revised: 2/22/2022

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