

# Course Outline

**Biol 106**

**Zoology**

**4 Semester Hours**

## The Community College of Baltimore County

### Description

#### **Zoology**

Discusses a broad spectrum of animal diversity including structure, nutrition, metabolism, and behavior of animals as well as their evolution and place in the biosphere; may include field excursions to observe Maryland's animals and their habitats.

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

Prerequisite: (ENGL052 or ESOL052 or LVE 2) and (RDNG 052 or ESOL 054 or LVR 2) and (MATH 083 or LVM 3)

### Overall Course Objectives

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

1. Work collaboratively in small groups to learn animal anatomy by analyzing and interpreting models, diagrams, and animal specimens(I, III, 1, 2).
2. Demonstrate their knowledge of animal physiology by working together in small groups in problem solving sessions which will assess their understanding of common themes of functional developments in the animal kingdom (I, II, 1, 2, 6).
3. Explain and relate the principles of animal behavior as they emerge through evolutionary development and through critical thinking assess the similarities and differences between animal groups (I, II, 1, 4).
4. Display knowledge of animal taxonomy by using dichotomous keys and type specimens to show the relationships between newly emerging species by actually having to determine the genus and species of an unknown lab specimen in a written class assignment (I, II, III, 1, 5, 6).
5. Describe the origins and evolution of the myriad animal phyla by answering written test questions geared to those specific areas of zoology (I, II, 7).
6. Compare and contrast the basic ecological interrelationships between the animal phyla using knowledge obtained through classroom lecture and zoological literature found outside of the classroom (V, 7).
7. Determine how the human race fits into the world of animals by using our current understanding of ecology and how humans effect and are effected by other organisms and the non-living environment (V, 7).
8. Assess the ever changing methods in taxonomic research by doing literature searches using scientific journals and original source materials which may include internet searches of major university and college web page publications (IV,5).
9. Experience independent learning by writing short papers that require using scientific source materials to determine newly immersing facts (VI, 2).

10. To use class discussion and question and answer periods to assess the role of different animal communities and the human population to determine how inextricably they are interconnected (VI, 7).

### **Major Topics**

Molecules, cells, tissues	Arthropoda
Mitosis and meiosis	Echinoderms
Taxonomy	Chordates
Development	Vertebrates
Protozoa	Bony fishes
Coelenterate	Amphibians
Platyhelminthes	Frog Anatomy
Nemertina	Reptiles
Platyhelminthes/ Pseudo-coelomates	Birds
Coelomates	Mammals
Mollusks	
Annelida	

### **Course Requirements**

In addition to conventional laboratory exercises, there may be several field excursions to observe Maryland's animals and their habitats. Also, there is a written project due at the end of the semester.

*Grading/exams: Grading procedures will be determined by four hourly exams, a final exam, and five lab quizzes . The hourly exams and the final will account for 75% of the course grade and the five lab quizzes will account for 25% of the course grade. A formal paper may be used as a substitute for one hourly exam(VII).*

### **Other Course Information**

This course will fulfill the Laboratory Science graduation requirement from the Limited Distribution System.

Date Revised: 5/4/00