

**Coffeyville Community College**

**BIOL-201**  
**COURSE SYLLABUS**  
**FOR**  
**GENERAL ZOOLOGY**

**Pam Oliver**  
**Instructor**

**COURSE NUMBER:** BIOL-201    **COURSE TITLE:** General Zoology

**CREDIT HOURS:** 5

**INSTRUCTOR:** Pam Oliver

**OFFICE LOCATION:** North side, second floor Arts and Sciences Building

**OFFICE HOURS:** See schedule posted on door

**OFFICE PHONE:** 620-251-7700 ext. 2070

**E-MAIL:** pamo@coffeyville.edu

**PREREQUISITE(S):** None

**REQUIRED TEXT  
AND MATERIALS:** Miller and Harley: *Zoology*  
Lab Manual:

**CLASSROOM  
RULES:**

Students are expected to follow **ordinary rules of courtesy** during class sessions. The instructor will not tolerate disruptive behavior that interferes with the classroom activities. Some of the general rules of classroom are below:

1. **Do not talk** to others in class while the instructor is lecturing. If you have a question, **ASK THE INSTRUCTOR!**
2. Keep hands, objects, and **NEGATIVE COMMENTS** to yourself.
3. Tardiness and early departure are distracting to your fellow classmates, and can negatively impact your grade.
4. Head/ear phones cannot be worn in class.
5. **No Cell Phones** will be used during class. This includes **TEXT MESSAGING**.
6. The instructor will dismiss class. Do not begin putting your “stuff” away until you are excused; if you do- a Pop quiz will be given.
  - ◆ Removed from class for the day. Student must meet with instructor to discuss behavior before allowed back into class.
  - ◆ If behavior continues, student will be removed from class for the semester.
  - ◆ Students may also receive a zero on the test or assignment or receive a failing grade in the class.

**COURSE****DESCRIPTION:**

This course covers the structure and function of animals. Principles of relationship, heredity, environment, geographic distribution and economic importance are considered. Representative types of animal life are dissected.

**EXPECTED LEARNER****OUTCOMES:**

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

1. Understand the Basic Chemistry of Life
2. Understand the Cell as the Unit of Life
3. Describe Tissues and Their Functions
4. Understand Cellular Metabolism
5. Know the General Principles of Genetics
6. Understand Animal Architecture and its Importance in Design and Function
7. Know Characteristics of Protozoan Phylum
8. Know Characteristics of Animals in the Porifera Phylum
9. Understand Characteristics of Radiate Animals: Cnidarians
10. Know Characteristics of Acoelomate Animals: Flatworms
11. Understand Characteristics of Pseudocoelomate Animals
12. Understand Characteristics and Functions of Molluscs
13. Know Characteristics of Segmented Worms: Annelids
14. Know Characteristics of Animals in the Arthropod Phylum
15. Know Characteristics of Echinoderms
16. Understand Vertebrate Beginnings and Characteristics of Chordates

**LEARNING TASKS  
& ACTIVITIES:**

Lecture class will normally consist of traditional lecture using power-point and note-taking. Bring your textbook, handouts, paper, pencil, and a highlighter to class.

Laboratories will consist of various activities including...

1. Laboratory activities from the lab book and handouts
2. Videos
3. Library research
4. Group Discussion
5. Projects and Presentations
6. Field Trips

Students should bring their lab book and textbook to lab.

**NOTE: Zoology Lab will include many dissections. Students are expected to treat the organisms dissected with respect. Actions or Verbalizations offensive in nature will result in expulsion of the student from lab.**

## ASSESSMENT OF OUTCOMES:

The student's final grade will be based on the following:

5 –6 lecture tests @ 100 points	500-600 pts
Project	100 pts
Lab Quizzes	200 pts
Lab Notebook, Assignments, and Participation	150 pts
Misc. Assignments and Quizzes	100 pts

Grades will be based on total points earned divided by points possible. Grades of A (100-90%), B (89-80%), C (79-70%), D (69-60%), and F (59-0%) are given in this course.

Incompletes given at the semester end will only be given if previously agreed upon by the student and instructor with specific time designated for the completion of the incomplete work. Please note the college's policy on incompletes as stated in the college catalog.

- ◆ Attendance/Participation points and pop quizzes **cannot be made up!**
- ◆ Late assignments will be **docked 10% per day.**
- ◆ Lecture tests can be made up only with the approval of the instructor and only if arrangement with the instructor is **made within 24 hours** of the scheduled exam.
- ◆ If the instructor approves a make-up exam—it **must be taken within one week** of the missed exam!
- ◆ **LAB EXAMS/QUIZZES CANNOT BE MADE UP!**

## ATTENDANCE POLICY:

Students are expected to attend all classes. Regular class attendance is necessary for maximum success in college. It is the responsibility of students to make definite arrangements for all work before going on field trips or other College-sponsored trips. School-sponsored activities will be counted as excused absences provided students complete all necessary assignments as designated by the instructors and the activity sponsors notify the instructors at least three (3) days prior to the day(s) the students will be absent. A student may be withdrawn from any class for excessive absences or non-participation. Non-participatory behavior (such as sleeping or text messaging) during lecture will be treated as an absence. Three tardies will equal one absence.

If a student misses twice the number of credit hours of a class, or has been non-participatory in a mediated course, and is achieving a below average grade, the instructor may request that the student be withdrawn from the class for non-attendance/non-participation.

**ACADEMIC  
INTEGRITY:**

Academic Dishonesty of any kind will render the offender liable to serious consequences such as a zero and possibly expulsion from the class. The following are examples of academic dishonesty:

1. Illegal possession of the exam
2. Use of unauthorized notes during an exam
3. Obtaining information from the book, notes, electronic devices or other students during an exam
4. Assisting other to cheat
5. Alteration of grade records
6. Illegal entry or unauthorized entry into office
7. Offering the work of another as one's own

**STUDENT'S  
RESPONSIBILITY:**

- ◆ Students must earn their grade. **Just attending class will not allow students to earn the points necessary to pass the course.** Students must earn passing grades on coursework.
- ◆ It is the student's responsibility to attend class, take notes, read assigned materials, participate in class, turn in assignments on time, etc.
- ◆ If a student is tardy, the STUDENT is responsible for getting with the instructor outside of class time to "catch up".
- ◆ If class is missed for any reason, the student is responsible for obtaining all content covered any announcements made in his/her absence. **THIS must occur OUTSIDE of normal class time.**
- ◆ It is the student's responsibility to communicate with the instructor about problems in the class, and to seek out help if needed.

*Students are ALWAYS encouraged to seek out the help of the instructor if it will facilitate the retention of the material. Office hours and contact information is listed on the front page of this syllabus.*

This syllabus is subject to revision with prior notification to the student by the instructor.

**CLASS OUTLINE:**

**UNIT I**

1. Introduction and Evolution
2. Chemistry
3. Organic Molecules
4. Cells and Tissues
5. Metabolism

**UNIT II**

1. Gamete Formation
2. Fertilization
3. Embryonic Development
4. Heredity

**UNIT III**

1. General Features of Animals
2. Protozoans
3. Porifera
4. Cnidarians
5. Flatworms
6. Pseudocoelomates

**UNIT IV**

1. Mollusks
2. Annelids
3. Arthropods
4. Echinoderms

**UNIT V**

1. Vertebrates
2. Fish
3. Amphibians
4. Reptiles
5. Birds
6. Mammals

## **COMPETENCIES:**

### **UNDERSTAND THE BASIC CHEMISTRY OF LIFE**

1. Describe the components of atoms and the shells of atoms.
2. Define elements
3. Describe Isotopes.
4. Know the three types of chemical bonds.
5. Know acids and bases and the p-H scale.
6. Describe organic molecules.
7. List the four organic molecules of life and their characteristics.

### **UNDERSTAND THE CELL AS THE UNIT OF LIFE**

8. Describe the anatomy of the cell
9. Know the organelles of the cell and their function
10. Describe the cell cycle.
11. Describe the structure of the cellular membrane.
12. Define osmosis and give examples.
13. Define diffusion and give examples.
14. Define active transport and give examples.

### **UNDERSTAND TISSUES AND THEIR FUNCTIONS**

15. List the types, characteristics and function of epithelial tissue.
16. List the types, characteristics and function of connective tissue.
17. Describe the types, characteristics and function of muscular tissue.
18. Describe the types, characteristics and function of nervous tissue.

### **UNDERSTAND CELLULAR METABOLISM**

19. Describe how energy is defined.
20. List the function, and nature of enzymes.
21. Describe Cellular respiration.
22. Compare aerobic and anaerobic respiration.
23. Describe the process of glycolysis.
24. Describe the Krebs Cycle
25. Describe the electron transport chain.

### **KNOW THE GENERAL PRINCIPLES OF GENETICS**

26. Know the process of DNA replication and protein synthesis.
27. Describe gamete formation and meiosis.
28. Describe the process of different types of embryonic development.
29. Know the principles of inheritance and how genes work.
30. Describe sex linkage and give examples of sex linked traits.

31. Describe mutations and how they affect function.

UNDERSTAND ANIMAL ARCHITECTURE AND ITS IMPORTANCE IN DESIGN AND FUNCTION
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32. Detail symmetry types.
33. Explain body planes.
34. Discuss body organization.
35. Contrast sessile vs. ambulatory animals.
36. Contrast microscopic and large animals.
37. Contrast colonial and solitary animals.

KNOW CHARACTERISTICS OF PROTOZOAN PHYLUM
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38. List general features of protozoans.
39. Describe nutrition and digestion of protozoans.
40. Detail excretion and osmoregulation.
41. Describe respiration.
42. Detail protozoan reproduction.

KNOW CHARACTERISTICS OF ANIMALS IN THE PORIFERA PHYLUM
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43. List general features of sponges.
44. Describe types of canal systems.
45. Describe types of cells, and skeletons.
46. Detail sponge physiology.
47. Know types of reproduction and development.

UNDERSTAND CHARACTERISTICS OF RADIATE ANIMALS: CNIDARIANS
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48. List general characteristics of cnidarians.
49. Know basic body form and function.
50. Describe body structure and locomotion.
51. Detail feeding and digestion.
52. Describe cnidarian reproduction and regeneration.
53. Identify characteristics and animals in the Hydrozoa, Scphozoa and Anthozoa class.

KNOW CHARACTERISTICS OF ACOELOMATE ANIMALS: FLATWORMS
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54. List general features of phylums.
55. Describe form and function of flatworms.
56. Detail nutrition, digestion, excretion and osmoregulation.
57. Describe the nervous system and sense organs.
58. Know the reproductive process of flatworms.
59. Identify the three major classes of flatworms and give examples of animals.

#### UNDERSTAND CHARACTERISTICS OF PSEUDOCOELOMATE ANIMALS

60. List general features.
61. Describe form and function.
62. Detail Nematode parasites of humans.
63. Identify major phyla of the pseudocoelomates.

#### UNDERSTAND CHARACTERISTICS AND FUNCTIONS OF MOLLUSCS

64. List general characteristics.
65. Describe form and function of mollusks.
66. Describe the body plan and internal structure.
67. Identify the three major classes; give examples of animals and characteristics of class.

#### KNOW CHARACTERISTICS OF SEGMENTED WORMS: ANNELIDS

68. List general features of segmented worms.
69. Detail body plan.
70. Discuss economic importance.
71. Describe the major classes.
72. Detail the form and function of each major class and give examples of animals in the class.

#### KNOW CHARACTERISTICS OF ANIMALS IN THE ARTHROPOD PHYLUM

73. List general features of arthropods.
74. Explain form and function of appendages, respiration, excretion and circulation.
75. Describe the nervous and sensory systems.
76. Describe reproduction and life cycles.
77. Identify the major sub-phyla and classes.
78. Discuss the economic importance of arthropods.

#### KNOW CHARACTERISTICS OF ECHINODERMS

79. List general features of echinoderms.
80. Describe the form and function of feeding and digestive systems.
81. Describe the nervous and sensory system.
82. Detail the reproductive system and regeneration and autotomy.
83. Identify major classes and give examples of animals.

#### UNDERSTAND VERTEBRATE BEGINNINGS AND CHARACTERISTICS OF CHORDATES

84. List general characteristics of chordates.

85. Describe Characteristics of all classes of fish.
86. Describe characteristics of amphibians.
87. Describe characteristics of reptiles.
88. Describe characteristics of birds.
89. Describe characteristics of mammals.
90. List examples of animals of each of the vertebrate classes.

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