

# **BIO 225**

## General Zoology Laboratory

### **Instructor Information**

Instructor:  
Office: , Phone:  
e-mail:

Meetings: daily

Meeting Room: Snell Hall 4103

### **Course Information:**

Course Co-requisites: Bio 224

Credit Hours: 1

Catalog Description: A laboratory course correlated with Biol 224, which addresses phylogenetic relationships of the major animal taxa with emphasis upon systems which have evolved to maintain organismal and population homeostasis.

Course Content Discipline: Zoology

Why take this course? Animal Biology and Diversity Laboratory (Bio 225 and its co-requisite lecture, Biol 224) fulfills part of the restricted elective coursework for the Biology Major.

### Course Objectives & Overview:

| Upon completion of this course, the student shall be able to:  | How the student will develop the learning outcomes | How the student will be assessed on these learning outcomes |
|--|--|---|
| <i>1. Understand the evolutionary relationships between major groups of animals</i>                  | <i>Readings and lectures</i>                       | <i>Daily quizzes and 2 practical exams</i>                  |
| <i>2. understanding the physiology of major systems in animals</i>                                   | <i>Readings, lectures, and dissections</i>         | <i>Daily quizzes and 2 practical exams</i>                  |
| <i>3. knowledge of morphological characteristics that differentiate the major groups of animals.</i> | <i>Readings, lectures, and dissections</i>         | <i>Daily quizzes and 2 practical exams</i>                  |

**Manual:** We have instituted an approach which provides you with a laboratory manual through blackboard. Rather than print a lab manual, we are providing it in an electronic version that you can download and peruse at your leisure. We have several reasons for doing things this way. Several of the exercises are under construction, and electronic distribution gives us more flexibility to modify and change the exercises during the semester. Another reason for this method of distribution is to involve you in the use of an increasingly important set of tools in science, namely computers and computer networking. Student response to the electronic manual has been quite positive. We would appreciate any feedback you have concerning the course and electronic manual.

The lab exercises for each day will be posted to the “content” area of blackboard as Word files. You must **bring a print out of the manual with you** to class each day. There will often be diagrams you will want to have as a guide as you perform experiments or dissections. **Do not wait** until the day before or the day of the lab to print the manual. In rare occasions, WKU’s blackboard site may be down so make sure you download the information well in advance.

**Preparation for Lab:** You must read the lab manual before coming to class each day. Reading the lab beforehand will allow you to spend your time in lab focusing on the dissections or results of the experiments instead of trying to figure out how to do the procedures. Reading the manual before lab will also be necessary for the daily quiz (see below).

**Lab Attendance:** Attendance of the laboratory session is mandatory. The lab materials are only available for one day.

### **Grading:**

**Quizzes (100pts):** There will be a short, 10-point quiz in the **first 5 minutes** of each lab. **There are no make-up quizzes.** You will not be allowed to take the quiz and leave. If you leave before the end of the session, your quiz score will be a 0 (zero) for that day. The quiz will usually contain 5 questions about the previous day’s lab and 5 questions about the lab to be performed that day. There will be 11 quizzes during the semester; your highest ten scores (100 points max.) will be used in calculating your semester grade. The format of the quizzes will be mainly multiple choice, fill-in-the-blank, and short definitions, although short answer question may appear occasionally.

**Exams (200pts):** there will be two exams covering the materials from the first and second halves of the semester. Each exam will be worth 100 points. Because of the practical nature of the exams, there will be **NO MAKE-UP EXAMS.**

Final grades are based on a percentage of the total points (300).

A = 90-100%   B = 80-89.9%   C = 70-79.9%   D = 60-69.9%   F = <60%

**Additional Rules:** No food or drink will be allowed in the laboratory.  
There will be no use of cell phones or pagers in the laboratory.  
Disruptive behavior will not be tolerated in the laboratory.

**Students with Disabilities Who Require Accommodations:**

The Office of Civil Rights recommends that the following statement be added to all syllabi: "In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in Downing University Center A-200. The OFSDS telephone number is (270)745-5004; TTY is (270)745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services."

**Academic Dishonesty:**

"Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without possibility of withdrawal. The faculty member may also present the case to the Office of the Dean of Student Life for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure". WKU Student Handbook

Student work may be checked by plagiarism detection software.

## Tentative Schedule

| <b>Day</b> | <b>Exercise</b> | <b>Laboratory readings.</b>                      |
|------------|-----------------|--|
| 07-09      | 1               | Introduction and Porifera                        |
| 07-10      | 2               | Cnidaria and Platyhelminthes                     |
| 07-11      | 3               | Osmoregulation                                   |
| 07-15      | 4               | Protostomes, Mollusca and Annelida               |
| 07-16      | 5               | Protostome Ecdysozoans - Nematoda and Arthropoda |
| 07-17      | 6               | Arthropod Diversity                              |
| 07-18      |                 | Review   |
| 07-22      |                 | <b>MIDTERM EXAM</b>                              |
| 07-23      | 7               | Hemoglobin/ Gas Transport                        |
| 07-24      | 8               | Deuterostome - Echinodermata, Chordate Evolution |
| 07-25      | 9               | Animal Behavior/ Chi-Square                      |
| 07-29      | 10              | Chordate systematics                             |
| 07-30      | 11              | Pig dissection                                   |
| 07-31      |                 | Review   |
| 08-01      |                 | <b>FINAL EXAM</b>                                |