

**Invertebrate Zoology Lab
Syllabus
Biol 311L (1 cr) Fall 2013
Corequisite: Biol 311
Thursdays 2-3:50pm**

Instructor: Dr. Joseph Mehus

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Office Hours: As posted and via appointment

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I. Course Description and Learning Objectives:

This is a general overview of the course Biology 311L (“lab”) and the activities associated with the course. A detailed listing of topics and activities follows.

Your Learning Objectives: To successfully complete this lab course, you must be able to:

- Differentiate between animal and other types of cells.
- Identify the phyla of invertebrate organisms
- Describe the ecological niche of different taxa of invertebrate animals
- Successfully identify invertebrate, specific organ/organ-like structures/function of tissue
- Identify anthropological roles of specific invertebrate taxa
- Present information about relevant “invertebrate topics”

Your learning in these and other areas will be assessed in the submitted lab assignments, lab quizzes, and exams. These activities are in support of the institutional student learning outcomes (SLOs) for biology majors. These are:

- SLO #1: Students will acquire a content knowledge base in the traditional biology core commensurate with career goals.
- SLO #2: Students will communicate scientific information both orally and in writing.
- SLO #3: Students will apply quantitative or qualitative theories of science to a broad variety of biological problems (including experiential component).
- SLO #4: Students will construct and critically analyze scientific arguments.
- SLO #5: Students will integrate technology appropriate to their major into their work products.

II. Instructional Strategies : The following instructional strategies will be employed to help you learn the material:

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|--------------------------------|-------------------------|
| • Indirect instruction | • Inquiry approach |
| • Direct instruction | • Dissections |
| • Interactive instruction | • Questioning skills |
| • Hands-on learning | • Downloaded animations |
| • Guided and independent study | • Application |

III. Materials Required

- **Text:** Biology of the Invertebrates, J.A. Pechanik, MHHE, 2010 General Zoology Laboratory Manual, S. A. Miller, 2013.
- **Dissecting Kit:** Dissecting kits/tools will be provided to students. There is no need to purchase extra items for dissection.
- We will utilize the learning management system **Moodle** (<http://lms.ndus.edu/course/view.php?id=5857>) to distribute study guides, lab procedures and other printed materials.

- A lab fee of \$15.00 has been assessed to partially defray the costs of some of the laboratory materials which are used during the course.

IV. Content

A. Evaluations: Your grade for the lab course will consist of three things.

1. **Lab quizzes** will be given at the beginning of each lab period during the first 15 minutes only. Material for which you are responsible in the quizzes will come either from any materials covered in the previous week's lab or from the procedure which you will be doing during the current lab period. The materials to be studied are shown in the schedule. **These lab quizzes may not be made up.** If you miss it for a legitimate reason, you may take it at the beginning of the following lab.

2. **Lab Final Exam.** This exam, given during the final lab period of the semester, will cover all materials studied in all of the labs done during the semester.

3. **In-Class Presentations.** These vignettes will be short (5 minute) powerpoint presentations with topics based on materials being covered in the lab. These presentations will include referenced information and photographs and will be summarized by student presenters. These will NOT be group presentations

B. Grading Scale: In order to get an "A", you should achieve an overall percentage of 90%, and to get a "B", 80% overall. A grade of "C" requires 70%, and a D 60% of the available points

Applicable MSU Policy Statements Important Student Information

- Important student information can be found on the Moodle page for this course under the "Important Student Information" link. Policy statements pertaining to the following topics may be found at that site.
 - English Proficiency and Other Academic Concerns
 - Students with Disabilities
 - Academic Honesty
 - Emergency Notification
 - Continuity of Academic Instruction for a Pandemic or Emergency
 - Family Educational Rights and Privacy Act of 1974 (FERPA)