**Biology 475L - Biology of Marine Animals Laboratory**

**Course Syllabus - Spring 2020**

**Lab Meeting Time:**

Tuesday, 12:30-3:15 pm\* Thu 12:30-3:15 pm\*

Wednesday 12:20-3:20 pm\* Friday 12:20-3:20 pm\*

\*\*All labs meet in G19 Wilson Hall.

**Instructor:**

Professor Ken Lohmann Office: 403 Coker Hall e-mail: KLohmann@email.unc.edu

**Teaching Assistants**

Lewis Naisbett-Jones (Section: 401) Office: 416 Coker Hall e-mail: lewisnj@live.unc.edu

Kayla Goforth (Section:403) Office: 416 Coker Hall e-mail: kaylago@live.unc.edu

Alayna Mackiewicz (Sections: 402, 404) Office: 416 Coker Hall e-mail: alaynam@live.unc.edu

**Office Hours:** For lab matters, schedule appointments to meet with teaching assistants.

Dr. Lohmann’s regularly scheduled office hours are Wednesdays from 11:15 a.m. to 12:15 p.m.

**Course summary:** This laboratory class must be taken in combination with Biology 475. The lab employs a hands-on approach to learn about the biology of the major animal phyla. This course is intended for advanced and highly motivated undergraduates who have strong interests in organismal biology and biodiversity.

**Expectations**

During most labs we will examine living and preserved specimens of one or more phyla. At the beginning of each lab, the TAs will provide a brief overview. For the remainder of the lab, you will be expected to complete laboratory exercises that consist of a series of observations, drawings, dissections, and thought questions that highlight the major characteristics of the featured phyla. We recommend that you keep all laboratory exercises, handouts, and related materials organized in a notebook so that this information will be available when you prepare for the lab practical exams.

 The lab meets once a week for three hours. You are expected to attend each week during your scheduled section and to stay for the duration of the lab. Each week we will likely get wet and/or dirty, so please dress appropriately. Because the lab often involves handling and examining live specimens that may only be available for a short time, it is impossible to make up labs that are missed. The scheduled labs are your only chance during the semester to examine the material, so be sure to complete everything in your lab handout each week. There will be no make-up quizzes or lab practical exams.

**Required textbook:** Biology of the Invertebrates” by Jan A. Pechenik (7th edition)



**Laboratory Exercises**

 You will be given laboratory exercises each week. These are beneficial to use when studying for the exams, so please take your time completing them – they will be your only study material for quizzes and practicals!

**Laboratory Practicals and Quizzes**

 A midterm and final lab practical will be given to test your knowledge of the topics we cover in lab. The final practical will be cumulative. A total of 2 laboratory quizzes will be given throughout the semester. Quizzes will also be cumulative, so it is a good idea to review your notes from all previous labs before each quiz.

**Lab notebook**

 Students are required to bring a lab notebook each week that they will use for general notes, dissection drawings, and anatomical sketches. This is also a good place to fill out the tasks from your weekly lab handouts (completion of these tasks will go towards the “completeness” aspect of your lab notebook grade). This notebook will be assessed during occasional random spot-checks and evaluated on quality, organization, and the level of detail.

**Presentations**

 Two group presentations will be required at different points in the semester. The first is a short (5-minute) presentation that is intended to help you prepare for a second, longer (20-minute) presentation later in the semester. The first presentation (5 points) will involve presenting on a study from the primary literature and will allow each group to obtain feedback from the rest of the class, and thus develop presentation skills before the final presentation (25 pts). For the final presentation you will focus on a topic of your choosing that is relevant to the biology of marine animals, and then present your findings to the class; your research should be based heavily on the primary literature. Further details will be provided in lab.

**Grading**

Two Lab Quizzes @ 5 pts......................................... 10 points

Midterm Lab Practical…............................................. 30 points

Final Lab Practical…................................................... 50 points

Lab book…………….................................................. 30 points

Presentations……………………………………….... 30 points

 **Total = 150 points**

**Field Trip**

If enough members of the class are interested, we are often able to arrange an optional weekend field trip to the UNC marine lab in Morehead City during April. Activities include a collecting trip on a research boat, exploration of intertidal habitats, a visit to the Pine Knoll Shores Aquarium, and a brief tour of the UNC marine lab. This will be a great opportunity to apply what you learn in lab in the field! The trip is **tentatively** planned for April 13-15, pending scheduling of an appropriate boat; further details will be provided at a later time.

**Tentative Laboratory Schedule (expect modifications)**

1. Jan. 13/17 Introduction to Ocean environments and Classification

2. Jan. 20/24 Porifera

3. Jan. 27/ 31 Cnidaria I

4. Feb. 3/7 **Quiz 1**

Cnidaria II

5. Feb. 10/14 Worms I & II

6. Feb. 17/21 Mollusca I

7. Feb. 24/28 **Midterm Lab Practical**

8. Mar. 2/6 Mollusca II

9. Mar. 9/13 Spring Break---No Labs!!!!

10. Mar. 16/20 *Presentation Project 1*

Arthropoda I

11. Mar. 23/27 Arthropoda II

12. Mar 30/ Apr 3 **Quiz 2**

Echinodermata

13. Apr. 6/10 Easter break – no labs!!!!!!

14. Apr. 13/17 *Major Presentation Project*

 Chordates

15. Apr. 18-19 Possible Field Trip to NC coast (Friday - Sunday)

16. Apr. 20/24 **Final Lab Practical**

**Honor Code:**

The University of North Carolina at Chapel Hill has had a student-led honor system for over 100 years. As instructors, it is our responsibility to report any instances of academic dishonesty and violations of the Honor Code. The student-led Honor System is responsible for adjudicating any suspected violations of the Honor Code. All suspected instances of academic dishonesty will be reported to the Honor System. Your full participation and observance of the Honor Code is expected. Please report any violations that you observe. Information, including your responsibilities as a UNC student are outlined in the Instrument of Student Judicial Governance:

**<https://studentconduct.unc.edu/sites/studentconduct.unc.edu/files/documents/Instrument.pdf>**

**Note:** this syllabus may be modified as the semester progresses.