Spring 2-1-2017

BIOB 171N.01: Principles of Biological Diversity Lab

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Laboratory Syllabus and Exercise Schedule BIOB 171 Spring, 2017

Labs meet in NS 203 or 106
Laboratory meets on M, T , W, Th, F. Consult your section number for meeting day/time.

Lab Manual: Principles of Biological Diversity. Compiled by Kevin Murray

Laboratory Course Content

BIOB 171 lab exercises are designed to accomplish 3 primary objectives: a) help you understand more completely, in an on-hands fashion, the diversity in form and function of living things, b) cultivate your self-directed, inquisitive and observation-based learning abilities, and c) experience a collaborative and communication-based learning/work environment. In most cases the lab exercises will overlap completely with lecture material. However, sometimes lab investigations parallel or expand further on lecture topics. In both cases however, you will be provided with as much background information as possible during the "Introduction" period of a lab session.

Student Expectations

BIOB 171 laboratory students are expected to follow the some basic course conditions:

- Arrive on time for lab session; please do not interfere with your Instructor's valuable Introduction discussion.
- Come to lab prepared for the investigation by reading over lab before-hand. It is at the discretion of your Instructor to give a quiz at the beginning of lab on the upcoming investigation, if she/he deems necessary.
- Work in self-motivated but collaborative fashion with other individuals in your investigation group.
- Attend the full lab session, as your Instructor may present summary statements at close of lab. Furthermore each student is expected to help in lab clean-up and reorganization at the close of lab.

Course Outcomes

Upon completion of BIOB 171 students will have gained increased understanding of the diversity in structure and function of living things from prokaryotic and eukaryotic realms. Students also further their competence in careful observation and description of living organisms, comparative observation and the use and care of microscopes. These skills extend beyond strict biological studies to disciplines such as forensics, medicine and micro-technology.

Course Accessibility

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you have a disability that adversely affects your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Grading

Your grade in BIOB 171 Laboratory will be determined as follows.

- Performance on weekly quizzes that cover previous week activities. Each quiz (7 in total) will be worth 10 points. There will also be 3 lab practical exams (no quiz that week); see lab investigation schedule for dates. Each practical exam will be worth approximately 20 points.

- Completion of 1 research paper on a topic of your choice related to and complementary to any of the lab exercises scheduled for this semester. Your Instructor will provide guidance on research paper format and library/internet research tools. 15 points.

- Lab notebook. You are required to maintain an organized, lucid account of your studies in lab. This should include written descriptions of what you study each week, supplemented by illustrations (not graded on artistic capacity). 25 points

- Additional points (up to 20) can be obtained by adherence to the above-listed Student Expectations.

Note: BIOB 171 grade is not factored into lecture (BIOB 170) grade.