

Biological Concepts: Unity 26-105
Spring 2006 Lab Syllabus
Sections: A05, A07, B02, B04, B06

Instructor: Andrew Bosma
Office: Halsey 39
Office Hours: Wednesday 12:30 – 1:30, and Thursday 10:00 – 11:00.
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Texts: Campbell, Reece, Taylor and Simon. (2006) *Biology: Concepts and Connections*, 5th edition.
Holton and Charley-Johnson. (2005) *Biology 105. Concepts in Biology: Unity – Laboratory Manual*. 6th edition.

Grading: Your lab grade will be based on your performance in three areas:
1) group lab reports and assignments, 2) lab quizzes and 3) attendance and participation. The reports will account for 55% of your lab grade, the quizzes will account for 35% of the grade, and finally attendance and participation will account for the remaining 10% of your grade.

Reports: Each lab group is responsible for writing a report to be handed in at the end of the lab period. The reports should be written on the forms provided in your lab manuals, and must contain the following four elements:

- 1) A hypothesis. This hypothesis should be a simple and testable explanation of your observations. For example: Termites navigate using their sense of sight.
- 2) The proposed experiments and controls. In this section you will describe the experiment with which you plan to test your hypothesis, and most importantly the controls you will use to exclude alternate hypotheses. If you are responsible for portions of the experimental design, the description must be sufficiently detailed that another group could repeat your work.
- 3) The predicted results and rationale. Here you will state the results you expect to observe, and your reasoning for these expectations. This section should be based on your initial observations and hypothesis, and must not incorporate information obtained from your experiment.
- 4) The actual results and conclusion. In the section you should describe your experimental observations, and present your data in a graph or table. After presenting your observations discuss whether they supported your hypothesis. If the observations did not support your hypothesis present a new hypothesis, and briefly describe experiments to test your new hypothesis. You should state any

conclusions that you can draw from your experiment, but be careful that the conclusions are evident from your data.

Quizzes: The lab quizzes will be in short answer and multiple choice format. They will test your understanding of the concepts covered in previous labs, and the basic concepts of the current lab. Quizzes will be unannounced and given at random intervals over the course of the semester, thus it is important that you are prepared for every lab.

Expectations: You must read the current exercise before attending lab, and have reviewed previous exercises. This review is especially important for multi-week experiments. You should answer all the questions in your lab books as preparation for your quizzes and written reports. When time permits, we will review these questions in lab. You are expected to participate in class discussions.

Absences: You are expected to attend all laboratory sessions. Missed reports and quizzes cannot be made up, and will be given a grade of zero. Students participating in athletics, those with Athletic or National Guard commitments, and other legitimate activities must contact me before the laboratory session they plan to miss. Absence due to illness will be excused if you present documentation from your health care provider.

Academic Honesty: If you engage in any form of academic dishonesty you will be subject to the Student Academic Disciplinary Procedures as set forth in the Student Disciplinary Code. This code is available at <http://www.uwosh.edu/dean/conduct.htm>.