

Biology 204L Laboratory Syllabus
(formally part of 201B)
Fall 2009

Lab Teaching Assistant: _____
Office: _____
Office hours: _____
Phone #: _____

Laboratory supplies required: Basic dissecting tools (1 pair of fine forceps, 1 pair of scissors, and 2 dissecting needles) and 1 laboratory notebook (see below).

Laboratory manual: "Laboratory Manual for Organismal Biology: an Evolutionary Approach," by Simpson, McMillan, and Gergus, is required for the course. The most recent version is available at KB Bookstore near campus. Please bring it to class every period. [Note: Earlier versions of the lab manual may be significantly different and cannot be used.]

Attendance: For an absence to be excused, **you must have proof of the excuse** (before or after the lab), and the excuse must be for a good reason (death in the family, medical, etc.). For an excused absence, see your laboratory instructor about making up missed material. If the absence is unexcused, you will receive no credit for any laboratory exercises during that week. **Two unexcused absences will result in your receiving an F for the lab portion of the course.**

Preparation: A great deal of time and effort was spent to write the lab manual so that the students would have the benefit of as much background information as was needed. You are **required** to read the lab manual before coming to lab. Your lab instructor will lecture briefly before each lab and will give a summary of the materials and exercises to be done in lab that day. Your lab instructor will not be giving you all the information that you will need to do the lab because most of the information is in your lab manual. When your lab instructor introduces the lab, you should ask questions on material in the lab manual that you found to be unclear. The lab will be much more difficult and lengthy and you will do poorly on the pre-laboratory quizzes (below) if you have not read the lab manual.

Grading: The laboratory part of Biology 201 is worth approximately **25%** of your overall grade in the course. The laboratory grade is made up of three parts, worth as follows:

Pre-Laboratory Quizzes	15%
Laboratory Notebook	25%
Lab Practicals	60%

Pre-Laboratory Quizzes: At the end of each lab is a list of generally 20 questions under the heading, "Laboratory Questions." You will be quizzed on a subset of these questions at the start of the lab for the current day's lab(s). [Note: The second week's quiz will cover Labs #2 and #3; the third week's quiz will cover Labs #3 and #8.] Thus, in order to do well, you must read and study the laboratory chapter and be able to answer all of the questions in the current day's chapter **before coming to lab**. The Pre-Laboratory Quizzes total 15% of your overall lab grade.

Laboratory notebook: You will be required to keep a laboratory notebook in which you will complete additional exercises and drawings. **The lab notebook is worth 25% of your lab grade.** Because

you will need the material from each lab to do most of the drawings, you will be required to do them while in lab.

Drawings and Diagrams. Your lab notebook should contain your original drawings, and diagrams that were assigned within the lab. All drawings and diagrams should be labeled as completely as possible (including species or genus name), even if the lab manual does not request that you specifically do so. The only time you don't need to label a drawing is when your GTA tells you not to do so. Each figure should **always** have a figure caption. The figure caption should have a figure number, a title for the figure or drawing that explains what was drawn, and the magnification (if a microscope was used). **Do not copy the figures from the lab manual or the textbook or you will be penalized, since essentially, that constitutes plagiarism.** You should draw the organisms you see.

Lab Practicals: You will be given 7 lab practicals during the semester that cover lab material only. These practicals will not be cumulative and will be worth 60% of your total grade for the lab. (Practical 7, because it covers only one laboratory exercise, counts only half the amount of Practicals 1 - 6.) The practicals will usually consist of identification of organisms and their characters. Practicals will be given after every two weeks of lab exercises (see schedule below). Your lab instructor will discuss the practical format in more detail before your first one.

Microscopes and computers: You will be using expensive equipment in your lab so be careful and don't abuse it. If you have an accident and something happens to the equipment alert your lab instructor as soon as possible so that he/she can have the equipment repaired.

Treatment of organisms: Because of our geographic location we are extremely fortunate to have an abundance of live organisms to observe in lab. It is a rare privilege for a general biology class to have this much live material to observe. **Don't abuse it.** This course is intended to be hands-on and handling of the plants and animals is encouraged, **but abuse of the plants and animals will not be tolerated.** If you are unsure as to appropriate handling, ask your GTA.

Lab Schedule: Fall 2009

[NOTE: A Pre-laboratory quiz on some of the lab questions will be given before the start of every lab.]

Week of:	Laboratory & Topic	Lab Practicals/Notebook
August 31	Lab #1: Evolution, Systematics, and Cladograms	
Sept. 7	Lab #2: Bacteria, Archaea, & Introduction to Eukaryotes + Lab #3: "Basal Eukaryotes" and Alveolates	
Sept. 14	Lab #3: Stramenopiles and Red Plants + Lab #8: Fungi	Practical 1 (Labs #1,2,3 in part).
Sept. 21	Lab #4: Green Plants: "Green algae" and Land Plants + Lab #5: Vascular Plants (all except "Diversity" section)	
Sept. 28	Lab #5: Vascular Plants ("Diversity" section) + Lab #6 Seed Plants	Practical 2 (Labs #3 in part, 8, 4, 5 in part).
Oct. 5	Lab #7: Flowering Plants	
Oct. 12	Lab #9: Porifera, Cnidaria, & Basal Lophotrochozoans	Practical 3 (Labs #5 in part, 6,7).
Oct. 19	Lab #10: Molluscs and Annelids	
Oct. 26	Lab #11: Ecdysozoans	Practical 4 (Lab #9-10).
Nov 2	Lab #12: Echinodermata, Hemichordata, and Chordata	
Nov. 9	Lab #13: Craniata: the "Fishes"	Practical 5 (Labs #11-12).
Note: Wed. labs on Nov. 11 (Veterans Day) will meet Mon. Nove 9th		
Nov. 16	Lab # 14: Amphibia and Reptilia	
Nov. 23	Handout: Required fieldtrip to Stephan Birch Aquarium (more on this later)	
Nov, 30	Lab #15: Mammalia	Practical 6 (Lab #13-14).
Dec. 8, 9, 10	Handout: Required fieldtrip to the S.D. Zoo	Practical 7 (Lab #15) at the Zoo