

MCB 32L Fall 2013 Syllabus

Hours

Lecture	Mon 1-2pm	2040 VLSB
Laboratory Sections	Wed, Fri 9am-12pm Tues, Wed, Thurs, Fri 2-5 pm	VLSB 4056 VLSB 4056

Instructor

Robin Ball rwbball@berkeley.edu
Office hours: Mondays 2-3pm VLSB lobby (outside 2040 VLSB)

Graduate Student Instructors

<u>Section</u>	<u>GSI</u>	<u>Email</u>
101: Tu 2-5	Heather French	heather_french@berkeley.edu
102: W 9-12	Kelsey Sharkey	gsikelsey@gmail.com
103: W 2-5	Kelsey Sharkey	gsikelsey@gmail.com
104: Th 2-5	Heather French	heather_french@berkeley.edu
105: F 9-12	Jessica Yuh	yuhjss@berkeley.edu
106: F 2-5	Jessica Yuh	yuhjss@berkeley.edu

Grading

The final grade will based on:

		<u>Pts</u>	<u>Percentage of final grade</u>
1. Pre Lab Quizzes	5 @ 10 pts each	50	5%
2. Lab Reports #	6 @ 100 pts each	600	60%
3. Worksheets	2 @ 50 pts	100	10%
4. Independent Investigation *	1 @ 200 pts	200	20%
5. Lab Participation		50	5%
Total Points		1000	

Your lowest lab report grade will be dropped, but all 7 reports must be turned in. Failure to submit a lab report will result in 50 point deduction.

* The independent investigation (Lab 10) will consist of 3 parts:

- Proposal 50 pts
- Laboratory report 100 pts
- Presentation 50 pts

Pre Lab Quizzes

The pre-lab quizzes will take place at the beginning of the lab section and cover material found in the lab manual for that week's lab. There will be 6 quizzes and your best 5 scores will be used to calculate your final grade. **You must read the laboratory manual before coming to class and be on time!**

Lab Participation

These points will be awarded at the discretion of your graduate student instructor. It will be based on a subjective evaluation of your participation during lab time, attendance, and the work you put into answering the study questions and thought questions for each lab.

Independent Investigation

During the last three labs of the semester, you will be working in groups to conduct and analyze your own experiments, which will follow up on concepts from earlier labs (see Lab 10 in manual). You will need to write a proposal for what you will test, how you will test it and how you will analyze the data. You will turn in one proposal per group and you will all receive the same grade. Your GSI will provide feedback to your group, so you can make changes to your plan before you start the experiments. You will have two lab sections to complete your lab and prepare your presentation. During the last lab section, you will each individually submit a lab report to your GSI. In the last lab section your group will present your experiments to the rest of your lab.

Late lab report policy

10 points will be deducted for a laboratory report that is turned in late. For every additional week, an additional 15 points will be deducted from the lab report. Thus if a lab is handed in within 1 week of the deadline, 10 points will be deducted, within 2 weeks 25 points will be deducted, etc. This policy is to be fair to all students across sections and to be fair to those students who turn their lab reports in on time.

Missed lab policy

Unfortunately, due to the preparation involved in laboratory setup, it is usually not possible to makeup any laboratories. **If you know ahead of time you will miss a laboratory or if you are sick and cannot attend you must contact Robin Ball (rwbball@berkeley.edu) and your GSI.** A missed laboratory session without a valid reason will result in a deduction of 50 points from your final grade. Due to the enrollment size, **you cannot just attend another laboratory section.**

Please tell your GSI if you will be late to lab and keep in mind that you may be missing a pre-lab quiz.

Schedule

Note: There is lab during the first full week of the semester (starting Sept 3). You must attend lab during the first week to keep your place in the class.

Week	Monday lecture	Lab	Assignments due
9/2	<i>No lecture (Labor Day)</i>	Introductions, safety, enrollment, etc	
9/9	Diffusion	Lab 1 – Diffusion	
9/16	Equilibrium and membrane potentials	Lab 2 – Electrolyte movement	Lab 1 report
9/23	Sensory systems	Lab 3 – Sensory	Lab 2 report
9/30	Autonomic nervous system	Lab 4 – Galvanic skin response	Lab 3 worksheet
10/7	Muscle contraction and summation	Lab 5 – Muscle excitability	Lab 4 report
10/14	EMGs and muscle movement	Lab 6 – EMG Sign-up for Lab 10 topic	Lab 5 report
10/21	Heart, cardiac muscle	Lab 7 – Frog heart	Lab 6 report
10/28	ECG, blood pressure, respiration	Lab 8 – Physiological measurements	Lab 10 proposal
11/4	Exercise physiology	Lab 9 – Exercise physiology	Lab 7 report Lab 8 worksheet
11/11	<i>No lecture (Veteran's Day)</i>	Lab 10 – Independent Investigation (week 1)	Lab 9 report
11/18	Example presentation	Lab 10 – Independent Investigation (week 2)	
11/25	<i>No lecture</i>	<i>No lab (Thanksgiving)</i>	
12/2	No lecture	Lab 10 presentations	Lab 10 report