

BE 492 Engineering Physiology Laboratory II

Spring 2009

Professor Andrew C. Jackson, PhD 44 Cummington St. (ERB), Rm 335 E-mail: ajax@bu.edu Tel. 617-353-2833 Office hours: Tues 3:00-4:00 and by appointment.	Lecture: Tuesday 2:00-3:00 pm, PHO 206 Lab Location: 48 Cummington St., Rm 209 Lab Sessions: T 4-7; W 5-8; Th 4-7, Th 12-3
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Graduate Teaching Fellows (GTFs): Jarred Callura: jcallura@bu.edu
Chris Garay: cgaray@bu.edu
Communicate with GTF's via email, no office hours.

Lab procedures

You **MUST** attend the lab session for which you are registered. If you need more time, open lab hours are available evenings, Friday and weekends (schedule is posted in lab)

All lab experimental work will be done in teams of two students (some exceptions). Find a lab partner, or we can assign you a partner at the first lab session. Use the same lab partner throughout the semester.

It is expected that students will clean up their station after completing the lab exercise unless instructed to do otherwise. This includes cables, connectors, microscope slides, papers, trash, etc. Points will be deducted if lab stations are not cleaned.

All analog signals being digitized should be displayed on your oscilloscope prior to and during data acquisition. The reason this is that in most cases you are not able to visualize a signal until after the data acquisition is completed then displayed. Therefore, if there was a problem during acquisition you will not know it until the experiment is over. Use of an oscilloscope to display the signal will allow you to make sure everything is in order before the experiment starts, as well as during the experiment

You are strongly encourage to do a preliminary analysis of your data before leaving the lab (i.e., it does not pay to grab and run). It is not uncommon to have students unaware of the fact that their data is garbage until they write the report the night before it is due.

Textbook: N/A

Website: All laboratory handouts and other course materials will be provided on the course web site at CourseInfo (<http://courseinfo.bu.edu>)

Grades will be based on lab reports and exams, as follows:

Lab reports	70%
Mid-term test	10%
Final exam	15%
Quizzes	5%

See Guidelines for Lab Reports for details on grading criteria for lab reports, format, when they are due, late reports, etc.

Students are encouraged to discuss laboratory assignments with classmates; however, either directly copying a classmate's work (text, data, analysis, or software) or allowing a classmate to knowingly copy your work constitutes plagiarism. This is not acceptable and will result in disciplinary action. A good rule to follow is, **never share written versions of lab reports or computer code**

Grading appeals: If you have a question or disagreement about your lab grade you **must** communicate the **specifics** to the GTF who graded that report on the day that the reports are returned. No changes will be considered after that day.

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Lecture date
Tuesday

Same week
Tu, W, Th

Jan. 13 No lecture		No labs
Jan. 20 Lecture	Lab #1	Biomechanics/biomaterials I
Jan. 27 No Lecture	Lab #2	Biomechanics/biomaterials II Informal report
Feb. 03 Lecture–	Lab #3	Microscopic I
Feb. 10 Lecture	Lab #4	Microscopic II Informal Report
Feb. 17 Lecture Prof. Szabo	Lab #5	Ultrasound I
Feb. 24.- Lecture Prof. Szabo	Lab #6	Ultrasound II Formal Report
Mar. 3	Midterm exam	Practical exam in lab, two groups per section, 90 mins/group. Lab will not be available for studying for exam.
Mar. 10 – Spring break	Spring break	Enjoy
*Mar. 17	Lab #7	Measuring air pressure, flow and volume.
March 24.	Lab #8	Measurements of lung volumes and ventilation rate. Informal Report
Mar. 31.	Lab #9	Respiratory control of ventilation: Carbon dioxide rebreathing. Formal report
April 7. No Lecture		Work on formal report
April 14		Formal reports due. Labs will be open to study for final exam.
April 21 No lecture		Labs will be open to study for final exam.
April 28 Final exam	Final Exam	Practical exam in lab, two groups per section, 90 mins/group. Lab will not be available for studying for exam

*Monday schedule on Tuesday. Lab time still available all week including open lab hours.