

Physics 413
Introduction to Biophysics
TuTh 11:00 am

Instructor: Dr. Joel Mobley
Room 1034 NCPA
Phone: 915-6937
jmobley@olemiss.edu (best way to contact me)

Office Hours: Wednesday 11:00 – 2:00, NCPA Room 1034

By appointment at **1034 NCPA**

Email me if you plan to come to NCPA

I will not be available before class TuTh. I also teach another class at 1 pm TuTh, so I will only be available briefly after class

NCPA is the **National Center for Physical Acoustics** and is located near the intersection of Chucky Mullins Dr. and Hill Dr. (see map)

EXAM SCHEDULE

Final Exam: Tuesday, May 8th, 12:00 pm

Midterm Exams (2): To be scheduled

Active Learning Environment

The class will be taught using the active learning method which relies on active student-professor interaction during lectures. This will require students pairing up in the classroom and participating in class dialogs. Because of this, students will be expected to attend all lectures and should notify me if they are unable to attend.

Learning Objectives:

After completing this class the student should understand the following:

- how the principles of physics underlie life processes at the cellular level,
- how to apply physics knowledge to solve problems in biology and biomedicine,
- the physical principles of biomedical diagnostic techniques such as ultrasound, x-rays, computed tomography (CT) and magnetic resonance imaging (MRI).

Detailed lists of learning objectives will be provided throughout the semester

Content: For half of the class, we will examine the role of physics in life processes and physiology, and for the other half of the course we will study the physics of biomedical diagnostic imaging.

Article Discussion: Throughout the semester, we will have class discussion days where a scientific article is reviewed. Students must read the article in advance and come prepared to participate in the discussion. The articles will be available in electronic format prior to the class.

Lecture Notes and Supplementary Materials:

Supplementary materials used during the course will be posted on Blackboard or emailed. Some of the lecture notes will be provided. Availability of these lecture notes will be based on attendance for the relevant class.

Grading

25 % each	2 Midterm Exams
25 %	Final Exam (May 8 th , noon)
15 %	Homework
10 %	Class Participation

Grading Scale

A: 100.0 – 92.0	B+: 87.4 – 82.5	C+: 74.9 – 70.0	D: 62.4 – 50.0
A-: 91.9 – 87.5	B: 82.4 – 78.5	C: 69.9 – 66.0	
	B-: 78.4 – 75.0	C-: 65.9 – 62.5	F: <50.0

Location of NCPA

