

Cal Poly Pomona, Phy/Bio 410

Instructor: Dr. Nina Abramzon	email:nabramzon@csupomona.edu
Office: Building 8 Room 229	Phone: 869-4021
Office Hours: Office Hours: Mon, Wed 11-12:00, 4:00-4:30; By appointment: Tue 9:00-11:00	
Text: No textbook is required. Reading materials will be provided by the instructor. Class web page: on Blackboard 9: https://bb.csupomona.edu/ Please check this site often, as I will be placing problem sets, solutions, reading assignments and announcements on this site.	

Course Description: This is a one-quarter introductory course designed to introduce students to classical and modern topics in biophysics. We will cover a wide range of material in order to give you a broad appreciation for the breadth of Biophysics.

Course organization: This course is structured around presentations by guest speakers who are currently engaged in biophysics related research. The bulk of our in-class time will be spent discussing articles and listening to guest lectures - this is a seminar style class.

Prerequisites: Physics 131, 132, 133 or Physics 121, 122, 123

Course objectives:

- Students should gain an understanding of fundamental physical principles while applying them to biological systems
- Students should develop the ability to research, read, understand, and critically discuss Biophysics journal articles
- Students should develop critical thinking skills for physical problems as they apply to biology
- Students should develop effective interdisciplinary communication skills
- Through the oral presentations, students should improve their ability to coherently present complex material (to which they may have had only limited exposure) to others.

Measurable Outcomes:

By the end of this course students should be able to:

- Read and discuss papers from a variety of Biophysics sub-fields.
- Have a good understanding of the interface between biology and the physical sciences.
- Provide critical analyses of research papers.
- Engage in independent research of the Biophysics literature and summarize findings.
- Clearly communicate your ideas to your colleagues.

Grading:

Homework	20%
Midterm Exam (2/2/11)	20%
Participation in class discussion	10%
Presentation	20%
Final Exam (3/14/11)	30%

Homework: For each day that a homework assignment is late, the score for that assignment will be reduced by 5%. Late HW will be accepted up to one week after the assignment is due.

Exams: All exams are in-class, closed book.

Presentation: In order allow you to explore a topic that interests you in more depth, you will give a 15-minute presentation (10 minutes for the presentation, and 5 minutes for questions) on an area of current Biophysics research or an application of physical sciences to Biology. You must choose your presentation topic by **2/7/11** and turn in a 1 page topic description including:

- 1) why you have chosen this topic
- 2) what is the relation between biology and the physical sciences in the topic you selected
- 3) a list of the main references that will be used when preparing your presentation.

This assignment will be revised until it is acceptable. Because an acceptable topic must be chosen by the above date you are encouraged to begin submitting topics early. You will lose 5% of the presentation grade for each day that the assignment is late. Students will be assessed on the depth of their understanding of the material, ability to answer questions, and the quality of the presentation. I recommend using visual aids such as Power Point. *You should plan on attending all student presentations and on showing up on time.* Absences are not acceptable. **Each unexcused absence from a presentation will result in a half letter grade reduction.** See the instructor promptly with your excuse should you miss a presentation.

Academic Integrity: Every student is expected to be familiar with the university policy on academic integrity. Copying and cheating are serious offenses.

Any student who feels s/he may need an accommodation based on the impact of a disability can contact me privately to discuss your specific needs. You can also contact Disable Student Services at 909-8693333 to coordinate reasonable accommodations.