

FOR SPRING 2009! BIOPHYSICS LECTURE & LAB COURSES!

An elective course for the molecular and cell biology emphasis of the Biology B.S. degree

Biophysics is the application of physical techniques and concepts to study biological systems. This introductory biophysics course is for biology, chemistry, physics, and pre-health majors who have had a year of introductory physics, chemistry, and biology. It is also for graduate students who want an introduction to this important field. This course will make pre-med/dental students to become better qualified in their applications for medical/dental schools. Please contact the instructor (see below) for more information.

Instructor: [Dr. Byung Kim](#), MP-425, 426-3659, ByungKim@boisestate.edu

Lecture: T Th 4:40 pm - 5:55 pm MP-408

Lab: Th 12:40 pm - 3:30 pm MP-404

Text: ["Biophysics, An Introduction" by Rodney Cotterill](#)

Syllabi: <http://www.boisestate.edu/physics/kim/syllabi.htm>

PHYS 307: INTRODUCTION TO BIOPHYSICS (3-0-3)(S). Application of physical principles and techniques to the study of biological systems. Lectures stress examples relevant to molecular biology and to biomedical research. Topics include introductions to biomolecular interactions, reaction kinetics, biophysical methods, DNA and RNA, proteins, biological membranes and ion-channel, cytoskeleton, nerve systems, and single molecular nano/biophysics techniques. PREREQ: PERM/INST (Recommended: BIOL 191, CHEM 112, MATH 160, PHYS 112 or 212.)

PHYS 307L: INTRODUCTION TO BIOPHYSICS LAB (0-3-1)(S). Enhanced understanding of the biomolecular structures, biomolecular interactions, and mechanical properties of biomolecular materials by using various state of the art biophysical techniques including atomic force microscopy (AFM). The specific goals are 1) to understand the biological phenomena with the current biophysical methods and techniques and 2) to introduce "single molecular biophysics".

"Even though this course is being given by the Physics Department, it can be counted as upper division credit towards the biology degree. This course would look GREAT on the transcript of someone trying to get into medical school or graduate school or vet school." -- Dr. James Munger, a former chair of Biology Department, Boise State University

Comments by previous biophysics students

"It covered some topics to which I'd already been exposed, but went more in-depth in some cases. Definitely, Byung is by far one of the best instructors I have had at Boise State."

"The combination of biology and physics is a powerful and insightful look into the behavior of nature".

"I would recommend it because the course has helped to clarify my understanding of some of the concepts that I learned"

"It tied together a lot of my previous classes in biology, chemistry, and physics."