Syllabus:

Course syllabus is available here.

Course goals:

PS3 is an introduction to electromagnetism, digital information, waves, optics and sound. Topics covered include: electric and magnetic fields, electrical potential, circuits, simple circuits, wave propagation in various media, microscopy, sound and hearing. We will draw upon a variety of applications to the biological sciences and will use real-world examples to illustrate many of the physical principles described.

Course format:

Lectures in this course are taught using active learning, meaning you will be working actively during lecture with your instructors and peers. In addition to lectures, the course has discussion and laboratory components.

Discussion sections takes place each week. You may choose to watch an interactive, asynchronous section video on your own, OR attend an in-person section.

Laboratory sections take place approximately every other week - there are six required laboratory sessions.

Typical enrollees:

PS3 offers a calculus-based introduction to physics, with many examples and key topics drawn from the life sciences and medicine. This course is part of an integrated introduction to the physical sciences intended for students who plan to pursue a concentration in the life sciences and/or satisfy pre-medical requirements in Physics. May not ordinarily be taken for credit in addition to Physics 15b.

When is course typically offered?

PS3 is offered only during the spring semester.

What can students expect from you as an instructor?

PS3 is taught in an active learning style - during each, meaning you will be working actively during lecture with peers, as well as with your instructors and members of the teaching staff. The teaching staff is here to help you succeed - as such, instructors and all members of the teaching staff are accessible outside of class.

Assignments and grading:

There will be nine or ten problem sets, which will count for 20% of your overall grade. Course participation will count for approximately 15% of your final grade. The laboratory counts for an additional 15% of the final grade. The last 50% of your final grade is determined by three exams: two midterms (about 15% each) and one final exam (about 20%). If it helps your final grade, we will replace your lowest midterm score with your score on the final exam.

Absence and late work policies:

As discussed above, lecture participation is an important part of your grade. If you earn 90% of the participation points you will get full credit for participation; anything less will be prorated accordingly.

Late problem sets will generally not be accepted (though exception can be made if you talk to an instructor), but we will drop your lowest problem set grade

Missed labs may be made up the following week, or at the end of the semester.