

COLLEGE OF CHEMISTRY COURSE GUIDE (../INDEX.HTML)

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BIOE 165/EE C145B - MEDICAL IMAGING SIGNALS AND SYSTEMS (_ UNITS)

(Taken from the UC Berkeley Course Guide (<http://guide.berkeley.edu>))

COURSE OVERVIEW

SUMMARY

Biomedical imaging is a clinically important application of engineering, applied mathematics, physics, and medicine. In this course, we apply linear systems theory and basic physics to analyze X-ray imaging, computerized tomography, nuclear medicine, and MRI. We cover the basic physics and instrumentation that characterizes medical image as an ideal perfect-resolution image blurred by an impulse response. This material could prepare the student for a career in designing new medical imaging systems that reliably detect small tumors or infarcts.

PREREQUISITES

EE 16A ([ee16a.html](#)) and EE 16B ([ee16b.html](#))

Fall only

WORKLOAD

TIME COMMITMENT

3 hours of lecture and 1 hour of discussion per week.

Made by Angela Lee, c/o 2019

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(<https://www.fsu.edu/college/online/graduate/curriculum/graduate-student-peer-advising>)