

Course Info

Instructor Vivek Srinivasan E-mail vjsriniv@ucdavis.edu
Office GBSF 2521
Office Hours F, 1:30-3:30 PM (or MW after class)

Course TA E-mail
Office Hours W, M, 9:30-10:30 AM (Med Science 1d Door 25)

Description:

Basic concepts of digital recording and analysis, sampling, empirical modeling, **Fourier analysis**, random processes, and spectral analysis applied to biomedical signals.

Objectives:

The students will be able to apply Fourier analysis and linear systems theory to a wide range of analog and digital biomedical signals and systems.

Prerequisites:

The official prerequisites for this course are Statistics 130A and Engineering 100 (See also BMEGG [prerequisites](#)). In particular, students are strongly encouraged to review complex numbers, phasors, filters, time and frequency domain representations of their responses, and transforms.

Text:

There is no required text for the course. Supplemental reading material will be supplied as needed.

Website: Canvas (<https://canvas.ucdavis.edu/>)

Lectures: GBSF 2202 (MW, 1:10~3:30 PM). But please keep the whole class period until 4 PM free.

Labs: This year, the labs will be Matlab-based. Please contact us if you cannot get access to Matlab. We can answer questions on the labs after class. Labs are due at the end of the day specified in the syllabus.

Requirements:

This course will consist of 7-8 homeworks, 5-6 Matlab-based laboratories, a midterm exam, and a final exam. We will drop the lowest individual homework and individual laboratory grades.

Evaluation:

Homework:	20%
Midterm Exam:	25%
Final Exam:	40%
Laboratories:	15%

Homework is due one week after it is assigned at the beginning of class unless otherwise instructed. Late submissions will receive no credit. You may consult other sources or discuss homework solutions, but your submitted homework should reflect your own work. Copying from another source will result in a grade of zero for the homework problem.

Examinations:

Midterm: Wednesday, May 1, 1:10-4 PM

Final: Wednesday, June 5, 1:10-4 PM