

Course Information

Class Meetings:	Tuesday and Thursday 10:00am–11:20am 2202 GBSF
Lab:	Tuesday and Thursday 11:20am–11:50am 2202 GBSF
Office Hours:	Tuesday 1:00pm–2:00pm, 140B Med Sci 1C Or by appointment, in person or on Zoom.
Office:	140B Med Sci 1C Cell: 530-304-1019 e-mail: dmrocke@ucdavis.edu web site: http://dmrocke.ucdavis.edu/ Email list: bim283-w24@ucdavis.edu Canvas site: BIM 283 001 WQ 2024
Required Text:	Statistics for Experimenters, Second Edition. Box, GEP, Hunter, JS, and Hunter, WG, Wiley, 2005.
Software:	Lectures and homework will utilize R for computation.
TA:	Brittany Lemmon (blemmon@ucdavis.edu).
Course Grading:	Letter Grades based on <ul style="list-style-type: none">– Homework– Exams– Possible Projects
Prerequisites	It is assumed that the student has taken at least one introductory statistics class.

This course covers design and statistical analysis of experiments in biomedical engineering after a refresher in basic statistics. We will cover concepts and methods of experimental design such as randomization, blocking, covariate adjustment, and factorial designs. We will also cover methods specific to common biological assay types such as PCR, mass spectrometry (proteomics and metabolomics), immunoassays, and RNA-Seq.