SPRING 2020
Computer Science
Special Topics

CS 591-2 / CS 480-1
Monday, Wednesday, Friday
4:00 – 4:50 PM
EGRA 208

Instructor – Dr. Xiaolan Huang

<u>Computational Statistics II</u>
(Graduate Category 1)

This course utilizes computational and graphical approaches to solve statistical problems. A comprehensive coverage on modern and classical methods of statistical computing will be given. Case studies in various disciplines such as science, engineering, and education will be discussed. Various topics such as numerical integration and simulation, optimization and maximum likelihood estimation, density estimation and smoothing as well as re-sampling will be presented. Students will be able to create graphical and numerical display based on their data analysis results using R programming language.

Prerequisite: MATH 250 & CS 306 or CS 330 with a grade of "C" or better.

Textbooks: *The Art of R Programming, A Tour of Statistical Software Design* (No Starch Press) 2011 by Norman Matloff, ISBN-13:978-1593273842, ISBN-10:1593273843.
Statistical Computing with R, Second Edition (Chapman & Hall/CRC The R Series) Hardcover 2015 by Maria L. Rizzo.
ISBN-13: 978-1584885450:, ISBN-10: 1584885459.