AMS 597.01  
Statistical Computing
Spring, 2020

INSTRUCTOR: Professor Wei Zhu  
E-MAIL: wei.zhu@stonybrook.edu  
PHONE: 632-8374  
OFFICE: Math Tower P-138  
OFFICE HOURS: Tuesday & Thursday 11:30AM -12:30PM  
CLASS: Tuesday/Thursday 10:00-11:20AM; Math S-235  
WEBSITE: http://www.ams.sunysb.edu/~zhu

TA: Mr. Jiecheng Song  
E-MAIL: song.jiecheng@stonybrook.edu  
OFFICE: Harriman 132  
OFFICE HOURS: Tuesday 1:00-3:00PM

Textbooks:
1. Introductory Statistics with R (2nd ed.), by Peter, Dalgaard, Springer. ISBN #9780387790534  

Course Objectives:
This course introduces graduate students to some basic elements of statistical computing and computational statistics. Students are expected to know statistical concepts including ANOVA, regression analysis, etc., before taking the course.

This course is divided into two main parts. The first part covers R implementation of important statistical models. SAS implementation will be provided as part of reading materials. The second part covers computational statistics including numerical analysis, Monte Carlo methods, bootstrap, permutation, etc.

Tests:
Midterm Exam: Tuesday March 24, 2020, in class.  
Final Exam: Friday May 15, 2020, 11:15AM-1:45 PM, in class.

Grading:
Midterm Exam 30%  
Homework 20%  
Group Project: 20%  
Final Exam 30%
Required Syllabus Statements
The University Senate Undergraduate and Graduate Councils have authorized that the following required statements appear in all teaching syllabi (graduate and undergraduate courses) on the Stony Brook Campus.

Student Accessibility Support Center Statement

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Student Accessibility Support Center, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity Statement

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.