STAT 6210-G: Data Analysis

Instructor: Huixia Judy Wang
Email: judywang@gwu.edu
Office Hours: 3:20pm-5:20pm Wednesdays or by appointment, 301G Old Main
Lecture: Tuesday 2pm-4:30pm, GW Graduate Education Center, Arlington, Room 618
Teaching Assistant: Xin Ray Hu (huxin@gwmail.gwu.edu)
TA Office Hours: 1:00pm-3:00pm Fridays in 301A Old Main

Course Description
This course will review statistical principles of data analysis using computerized statistical analysis procedures provided by the Statistical Analysis System (SAS) or R. Topics to be covered include:

- Hypothesis testing and inference
- Correlation, simple and multiple linear regression
- Analysis of variance and covariance
- Analysis of contingency tables and categorical data, logistic regression
- Generalized linear models
- Nonlinear regression
- Nonparametric regression
- Longitudinal data analysis
- Other statistical models

Recommended Textbook

Prerequisites:
- STAT 2118 (Regression Analysis) or equivalent
- STAT 4157/6201 (Introduction to Mathematical Statistics) or equivalent
- STAT 2183 (Intermediate Statistical Laboratory) or equivalent

Learning Outcomes: By completing this course, students will be able to
- Formulate a statistical model;
- Carry out statistical analysis (manually or with software);
- Report analysis results.
Grading:

- Homework (weekly, take home): 35%, work independently
- Quizzes (3, in class): 45%, work independently
- Final exam/presentation/project: 20%

Class Policies

- Regular class attendance
- No early or make-up homework or exam/project except under extraordinary circumstances, in which a written request and legitimate documentation must be submitted in advance. Under no circumstances will make-ups be given to accommodate travel arrangements that conflict with scheduled course activities.
- Religious holidays will be accommodated
- University policies on teaching are available at [http://www.gwu.edu/~academic/Teaching/main.htm](http://www.gwu.edu/~academic/Teaching/main.htm)

Academic Integrity

I personally support the GW Code of Academic Integrity. It states: “Academic dishonesty is defined as cheating of any kind, including misrepresenting one’s own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information.” For the remainder of the code, see: [http://www.gwu.edu/~ntegrity/code.html](http://www.gwu.edu/~ntegrity/code.html)

Supports for Students outside the Classroom

- Students with Disabilities: Reasonable accommodations will be made for students with verifiable disabilities. Please inform the instructor if you have a documented disability and need special arrangements for tests or quizzes. To establish eligibility and coordinate reasonable accommodations for exams, please contact the Disability Support Services Office (202-994-8250), in Rome Hall, Suite 102, or at [http://gwired.gwu.edu/dss/](http://gwired.gwu.edu/dss/)

- University Counseling Center (UCC): The University Counseling Center offers 24/7 assistance and referral to address students personal, social, career, and study skills problems. Services for students include crisis and emergency mental health consultations, confidential assessment, counselling services (individual and small group), and referrals visit [http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices/](http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices/) or call 202-994-5300.

**Note:** The instructor reserves the right to make any changes she considers academically advisable. Such changes, if any, will be announced in class. Please note that it is your responsibility to attend the class and keep track of the proceedings.