THE GEORGE WASHINGTON UNIVERSITY
Department of Statistics

STAT 2118: Regression Analysis, Spring 2013

SYLLABUS

Instructor: Dr. Joshua Landon, Rome Hall, Room 652.
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Office hours: 3:00-4:00 p.m. Wednesdays, and by appointment

TA: Swetha Valluri (valluri@gwmail.gwu.edu), Liyi Jia (rw_kar@gwmail.gwu.edu)
Your TA will lead the recitation section.
TA Office: 2140 Pennsylvania Avenue Basement.

Lecture: M & W 12:45-2:00 p.m., Corcoran Hall, Room 101.
Lab: register for one recitation section.


Course Description: The aim of the course is to introduce basic concepts of simple and multiple linear regression, inference, partial correlation, residual analysis, stepwise model building, multicollinearity and diagnostic methods, indicator variables, and their applications. The course will cover the material in chapters 1–10, and parts of chapters 11 and 12.

Prerequisites: One course in statistics: Stat 51, Stat 53 or equivalent.

Learning Outcomes: As a result of completing this course, students should be able to:

1. Understand basic concepts of correlation, regression, model diagnostics and model building.
2. Know how to fit and interpret regression models and apply them in various fields (e.g. Finance, Economics).
3. Analyze and interpret Regression data using SAS.
4. Compare different competing regression models and select the best one among them.

Homework: Homework will be assigned almost every week. Your TA will go over problems similar to the HW problems and SAS examples during lab sessions.

SAS Projects: There will be at least two computer projects involving the use of SAS to statistically analyze data. A report along with the SAS code and SAS output has to be turned in.

Exams: There will be two midterm examinations and one final examination in this course. They will be closed book but a sheet with formulas will be allowed.

Grading: Your final grade will be determined by a weighted average of assignments and exam scores: Homework 10%, SAS Projects 20%, Midterms 40%, Final 30%.