Stats 120B: Introduction to Applied Regression Analysis

Syllabus (Spring 2007)

Instructor: Hongquan Xu
Office Hour: MWF 11-11:50pm at MS 8955
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Course Homepage: http://moodle.stat.ucla.edu/
Prerequisite: Statistics 120A.

Textbooks
1. Montgomery, Peck and Vining (2006). *Introduction to Linear Regression Analysis*, 4th ed, Wiley.
2. Weisberg (2005). *Applied Linear Regression*, Third Edition, Wiley.

Topics: polynomial regression, nonparametric regression, analysis of variance (ANOVA), variable selection, model validation, multicollinearity, ridge regression, principal-component regression, logistic regression, Poisson regression, classification and regression tree (CART) and others.

Software
We'll use R, free open-source statistical software that is quite powerful and flexible. You are strongly encouraged to download onto your own computer.   You can download R at
        http://cran.stat.ucla.edu

You will have access to the lab computers (MS 8349) to do work.

Grading
Your grade will be based on
        a) Weekly Homework (30%): **No late homework.**
        b) Midterm (20%) : **Monday, May 7, 2007.**
        c) Final (50%): **Wednesday, June 13, 2007, 8-11am.**

Class attendance is required and important for you to understand the materials, especially the topics not from the textbooks. The exams will include everything taught in lectures and discussion sessions.