ST427: Statistical Consulting
Spring, 2013

Instructor: Annie Qu, Ph.D., Professor of Statistics

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Office hours: After class or by appointment

Course information: ST427, 4 credits, meets at 2-3:20pm Tue. and Thur. in Illini Hall 122

Software used in class: Mainly SAS and R

Class requirements: Class participation, final presentation and written report from each team will be evaluated.

Class plans:

• At the first part of the semester: clients come in to present their projects (Jan. 22-Feb. 21), consulting teams are assigned to projects, each team starts to work on its project as soon as the client presents

• It is essential to exchange contact information (email addresses and phone) right away, and to make arrangements to meet with the client and/or get data as soon as possible

• Teams will update the instructor weekly on their progress, through meeting the instructor or by email

• In the middle of the semester (Feb. 26-Mar. 14), we will use class meeting time as group meeting time and report to the instructor on project progress

• Later in the semester (Mar. 26-Apr. 25) teams will present final reports on their projects to the class

• Each team will submit a final written report to the client and to the instructor

Guidelines for Writing Reports to Clients

• Provide a summary of data source and background of the data.
• Provide a summary of statistical methods used, including descriptive statistics, histograms, scatter plots, transformations; models developed, code written; tests of significance, confidence intervals; other analyses (e.g., principal components, factor analysis, clustering or classification methods, sample size and power calculations).

• Provide a Summary of results, including conclusions from visual and numerical summaries; statistically significant and non-significant results; estimates, standard errors, and confidence intervals; other results if relevant, e.g., the nature of principal components or factors, correlations, clustering/classification error rates, etc.

• Provide any necessary tables, graphs, plots, printouts, etc. – the details behind the summary information.

**Prerequisites:** Math. Stat. (510) and linear regression models (425) or consent of the Instructor.

**Key reference:**