ST426: Categorical Data and Sampling
Spring, 2013

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

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Office hours: T: 11-12pm, F: 4-5pm or by appointment

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TA’s Office hours: M, W: 1-2pm  Thur: 3-4pm or by appointment

Course information: ST426, 4 credits, meets at 9:30-10:50pm Tue. and Thur. in 160 English Building

Textbook: An Introduction to Categorical Data Analysis by Agresti, Wiley.

Software used in class: Mainly SAS and R

General topics: multi-way contingency tables with nominal or ordinal variables; log-linear models; logistic and probit regression for binary response; proportional odds models; Poisson regression; generalized linear models: model selection, lack-of-fit diagnostics and inference; models with over-dispersion; models with dependent data, generalized estimating equations and generalized linear mixed effects model; simple random sampling, stratified sampling and multi-stage sampling.

Workload: There will be weekly homework assignments. Homework must be turned in by the end of the class on the due date. Late homework and homework by email will not be accepted. You need to show all your work (not just the final solution) in order to get full credit. All homework counts. Please use the UIUC compass website to check your scores for homework and exams. Requests for changing scores will be considered within two weeks after exams or homework are returned.

Exams: Two midterm exams (Feb. 14 and Mar. 28) and one final exam will be given. For the exam, one sheet of notes will be allowed. If you are unable to take an exam, you must contact the instructor on or before the day of the exam. All excuses must be verifiable. Make-up exams will be given only under exceptional circumstances.
Grading:
30% Homework
20% First midterm exam
20% Second midterm exam
30% Final exam

Academic honesty: You can discuss your homework with your classmates, but you should write your homework using your own words and your own understanding. Violation of these will count as Academic Dishonesty. Detailed policy and procedures can be found in the U of I Student Code, Part 4: “Academic Integrity - All Students.”

Prerequisites: ST410

Additional References: