Course Syllabus: CS&SS/SOC/STAT 536 Analysis of Categorical and Count Data
Fall Quarter 2011

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Website
http://www.stat.washington.edu/adobra/classes/536/536.html

Discussion board
https://catalyst.uw.edu/gopost/board/adobra/23371/

Classroom
The class meets Monday and Wednesday between 2:30 and 3:20pm in SAV 130. On Fridays between 2:30 and 3:20pm we have a lab session in SAV 121.

Office Hours
Wednesdays and Fridays between 3:30pm and 5:30pm in UW Health Sciences Building, room T643.

Textbooks
Prerequisites

SOC 504/505/506, or equivalent; recommended: CS&SS 505/506. Students are expected to be familiar with R as well as with basic calculus, matrix algebra and probability.

Class requirements

The students will have to complete six homeworks (75% of final grade) and a final take-home exam (25% of the grade).

Topics to be covered


Schedule

Week 1. Foundations: Review of basic mathematical concepts, matrix algebra and discrete probability distributions. Reading: Fienberg, chapter 1; Long, chapters 1, 2.


Week 6: Log-linear models for two-way contingency tables. Reading: Fienberg, chapters 2.

Week 7: Log-linear models for three-way contingency tables. Reading: Fienberg, chapters 3.

Week 8: Log-linear models for higher-dimensional contingency tables. Model selection for contingency tables. Reading: Fienberg, chapters 4, 5.

Weeks 9-10: Special topics: Fixed and random zeros, models for tables with ordered categories, exact testing, copula models. Reading: Fienberg, chapters 6, 8.