Students requiring accommodations as a result of disability must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca

Instructor: Dr. Rick Routledge

Prerequisite:
Statistics 830 and Statistics xxx [linear models] or permission of the instructor

Textbook:

Recommended:
1. *Categorical Data Analysis, 2nd Edition*, by Alan Agresti. Publisher: Wiley

Calendar Description:
The theory and application of statistical methodology for analyzing non-normal responses. Special emphasis on contingency tables, logistic regression, and log-linear models. Other topics can include mixed-effects models and models for overdispersed data.

Outline:

1. Analysis of contingency tables
2. Logistic Regression
3. Generalized linear models (GLMs)
   a. The exponential family
   b. Link functions
   c. Relationship to linear models
   d. Iterated reweighted least-squares estimation
4. Models for overdispersed data
   a. Quasi-likelihood
   b. Introduction to estimating functions
5. Models for multinomial data
   a. Log-linear models
   b. Ordinal responses

Grading Scheme:

Assignments – 50%
Midterm – 20%
Final – 30%

Revised November 5, 2012