

Course Information

Time and Location: Tues 8:30 – 10:25 a.m. (per. 2–3) 018 Matherly Hall (MAT)
 Thur 9:35 – 10:25 a.m. (per. 3) 121 Little Hall (LIT)

Instructor: Dr. Brett Presnell

Office: 220 FLO

E-mail: presnell@stat.ufl.edu

Office Hours: See instructor's web page.

Phone: 273-2989

Web Page: <http://www.stat.ufl.edu/~presnell/>

Text: *An Introduction to Categorical Data Analysis (2nd edition)* by Alan Agresti. Published by John Wiley & Sons, 2007.

Course Web Page: <http://www.stat.ufl.edu/~presnell/Courses/sta4504-2011sp/>

Teaching Assistant: Ms. Tezcan Ozrazgat Baslanti

Office: 117A FLO

E-mail: torazgat@stat.ufl.edu

Office Hours: See TA's web page.

Web Page: <http://www.stat.ufl.edu/~torazgat/>

The TA will answer questions about the homework exercises, including computing questions (see below), and in my office hours I will answer questions about the methods themselves. Homework exercises will also be graded by the TA.

Prerequisites: Familiarity with basic statistical methods, as covered in courses such as STA 3024, STA 3032, STA 4210, STA 4322, STA 6127, or STA 6167. If you have not had one of these specific courses, please see instructor. Much of this course deals with extensions of regression modeling to handle categorical response variables, so students should be comfortable with multiple regression modeling, including the use of dummy variables for incorporating categorical predictors in a model, and should have had practice using statistical software for regression and ANOVA.

Course Content and Objectives

Description and inference for binomial and multinomial observations using proportions and odds ratios; multi-way contingency tables; generalized linear models for discrete data; logistic regression for binary responses; multi-category logit models for nominal and ordinal responses; inference for matched-pairs and correlated clustered data; loglinear models.

The student is expected to learn when these methods may be applied, how to apply them, and how to properly interpret the results.

Grading

There will be two exams in the course, given on the following dates:

Exam 1 Tuesday, February 21

Exam 2 Tuesday, April 19

The second exam is not cumulative, except to the extent that the material in the second half of the course necessarily depends on that from the first half.

There will also be regular homework assignments. You are permitted to work together with other students in understanding the course material and completing the homework, but you must write up your solutions individually. Any supporting computer output must be submitted with the homework. *No homework will be accepted after its due date* and any homework not turned in on time will receive a grade of zero, but your lowest homework grade will be dropped when calculating your course grade.

Each exam will account for a third of the course grade, and homework will account for the remaining third.

Software and Computing

It will be necessary to use a computer and a statistical software package to do most of the homework assignments. I expect to do all the computations for the course using R. To quote the R homepage (<http://www.r-project.org/>):

R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS.

The course web page will have an R section that gathers useful information about R, including instructions for downloading and installing R on Windows, MacOS, and Linux. R code will be provided in the notes and/or on the course web page for all the examples covered in class.

You may use other software (e.g., SAS, JMP, SPSS, or Stata) to do homework if you wish, but I can offer little or no guidance on the use of these programs. The TA may be able to help you with some of them, and particularly with SAS, but you should not assume this. SAS code is available for most of the examples in the text, and a link to this code will be provided on the course web page.