STA 7249 Sec 7523 Generalized Linear Models **Spring 2009**

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Lecture: T Period 2-3, Th Period 3, FLO 230

Pre-requisites: STA 6207-6208 and Stat 6327.

Required Text:
Dobson and Barnett (2008) *An introduction to generalized linear models, 3rd edition*, CRC Press.

Useful texts (on reserve in Marston Science Library):

McCullagh and Nelder (1989) *Generalized Linear Models, 2nd edition*, Chapman & Hall.

Fahrmeir and Tutz (2001) *Multivariate statistical modelling based on generalized linear models.* Springer.

Wood (2006) *Generalized additive models: An introduction with R.* Chapman & Hall/CRC Press.

Hastie and Tibshirani (1990) *Generalized Additive Models.* Chapman & Hall.

Hardin and Hilbe (2007) *Generalized linear models and extensions, 2nd edition.* Stata Press.

Office Hours: T Period 4, Th Period 2 or by appointment (call or email)

Content:
This course will focus on the theory and application of generalized linear models and related topics. The core material covered will be in Chapters 3-9 of Dobson and Barnett. Questions on this material appear on the PhD qualifying exam. Advanced topics will be covered if time permits.

Computing: Models introduced will be fit using R. You will be required to write code to fit some of these models. Datasets from the book (and for some hw problems) can be downloaded from

http://www.crcpress.com/e_products/downloads/download.asp?cat_no=C9500

Assignments: There will be several assignments handed out during the semester. Assignments will be due at the beginning of class on the due date. Late assignments will not be accepted. Your homework grade will be based on both completing the assignment and my grading of selected problems.

Project: A twenty minute presentation on an advanced topic not covered in the course. It will be graded based on correctness and clarity. Topic must be approved by me ahead of time. I will give more details at the end of February.

Exams: There will be two exams given during regular class time (dates given below). The exams will require a calculator. If you are unable to take an exam on the scheduled date (due to circumstances beyond your control), you need to contact me **BEFORE** you miss the exam. Otherwise, you will receive a 0 on the exam.

Grades: Grades for the course will be based on the following:

Assignments	10%
Project	20%
Exam I	35%
Exam II	35%

Important Dates

No class: Tuesday January 27, Tuesday March 17

Exam I: Tuesday February 24

Exam II: Tuesday April 21