OFFICIAL SYLLABUS

STAT 535-DATA ANALYSIS AND PROBABILITY CONTENT, PEDAGOGY, AND CONNECTIONS
Effective Fall 2012

CATALOG DESCRIPTION: A focused look at data analysis and probability, best practices in pedagogy, and connections to other areas.

Prerequisites: STAT 244 or higher and MATH 250 with a C or better or consent of instructor.

Textbook:

- Teaching Statistics: A Bag of Tricks, by Andrew Gelman & Deborah Nolan, Oxford Press, 2002.
- Statistical Questions From the Classroom, by Michael J. Shaughnessy & Beth Chance, National Council of Teachers of Mathematics, 2005.

Course Outline

Chapter 1: Introduction
Chapter 2: First week of class
Chapter 3: Descriptive Statistics and Questions 1 and 3
Chapter 4: Linear regression and correlation and Question
Chapter 5: Data collection and Questions 5 and 7
Chapter 6: Statistical literacy and the news media and Que
Chapter 7: Probability
Chapter 8: Statistical inference and Questions 6 and 8-10
Chapter 9: Multiple regression and nonlinear models
Chapter 10: Lying with statistics and Question 11
Chapter 11: How to do it and
Chapter 12: Structuring an introductory statistics course

(Chapters from *Teaching Statistics*, questions from *Statistical Questions*)