

ST 451 / 551 - Statistical Methods for Research II - Spring 2007

Class Meetings: Rm. #4 Bashinsky Lab 12:30 AM – 1:45 PM T Th

Text: *Statistical Methods and Data Analysis*, by Ott and Longnecker, 5th Edition. Cass notes will supplement the text.

Prerequisites: One of the following: ST 450/550, GES 400/500, BER 540, CHS 425/525

Description: Analysis of variance and design of experiments, including randomization, replication, and blocking; multiple comparisons; correlation; simple and multiple regression techniques including variable selection, detection of outliers and model diagnostics. Statistical software packages are used extensively to facilitate valid analysis and interpretation. Emphasis is on appropriate analysis of data in real situations.

Objectives: Students will be able to develop, analyze, and interpret data, modeled as arising from various normal-error models. Furthermore, students will recognize the overarching structure of the general linear model, and how both observational and designed datasets, containing both discrete and continuous variables, fit into this framework. Students will gain experience with several statistical software packages.

Instructor: Bruce Barrett, 352 Alston, 348-8903; bbarrett@cba.ua.edu

Office Hours: By appointment. I am available the majority of normal business hours.

Attendance: Attendance of the lectures is an integral part of the course and is expected from all students.

Grading: Tests 1-3: 25% each, Comprehensive Final: 25%.

Scale

95 – 100	A+	No make-up tests will be given for students missing any of the three scheduled tests. Absence from any test will result in a score of zero unless the instructor has approved the absence <u>prior</u> to the test. In the event that prior approval is given, the weight of the missed test will be added to the final exam.
91 – 94	A	
88 – 90	A–	
85 – 87	B+	A make-up for the Final Exam will be given only in the most extreme circumstances, and only with <u>prior approval</u> .
80 – 84	B	
77 – 79	B–	
74 – 76	C+	Graduate students are not graded according to the plus / minus system and may also be required to submit work beyond that required of the undergraduates.
70 – 73	C	
67 – 69	C–	
64 – 66	D+	Students with disabilities that require special accommodation should register with the Office of Disability Services (348-4285) and then make arrangements with the instructor early in the term.
60 – 63	D	
57 – 59	D–	
0 – 56	F	

In the event of an emergency, we will adhere to the following actions in accordance with University policies.
FIRE/FIRE ALARM: Evacuate the building and stay out of the building at a safe distance until authorized to return.
TORNADO WARNING: Move to the Lower Level, inside classrooms, offices or corridors. Remain until the warning has expired. Classes are cancelled until the warning expires.

ST 451 / 551 SCHEDULE (TENTATIVE) Spring 2007

TUESDAY	THURSDAY
	January 11 Simple Regression Chapter 11
January 16 Simple Regression Chapter 11	January 18 Simple Regression Chapter 11
January 23 Simple Regression Chapter 11	January 25 Simple Regression Chapter 11
January 30 Simple Regression Chapter 11	February 1 Correlation Chapters 12 & 13
February 6 TEST 1	February 8 Multiple Regression Chapters 12 & 13
February 13 Multiple Regression Chapters 12 & 13	February 15 Multiple Regression Chapters 12 & 13
February 20 Multiple Regression Chapters 12 & 13	February 22 Multiple Regression Chapters 12 & 13
February 27 Multiple Regression Chapters 12 & 13	March 1 Multiple Regression Chapters 12 & 13
March 6 Multiple Regression Chapters 12 & 13	March 8 TEST 2
March 13 Spring Break	March 15 Spring Break
March 20 Analysis of Variance Chapters 14 & 15	March 22 Analysis of Variance Chapters 14 & 15
March 27 Analysis of Variance Chapters 14 & 15	March 29 Analysis of Variance Chapters 14 & 15
April 3 Analysis of Variance Chapters 14 & 15	April 5 Design of Experiments Chapters 14 & 15
April 10 Design of Experiments Chapters 14 & 15	April 12 Design of Experiments Chapters 14 & 15
April 17 Design of Experiments Chapter 19	April 19 Logistic Regression Class Notes
April 24 Logistic Regression Class Notes	April 26 TEST 3 Class Notes
May 1 Review	May 3 Review

Final Exam: May 11 11:30 AM - 2:00 PM