

## Course Outline

Spring Semester 2008

STA 4322 (Section 7474) Introduction to Statistics Theory  
STA 5328 (Section 7482) Fundamentals of Statistical Theory

Tuesday 7; Thursday 7-8; Griffin-Floyd 100

### Instructor:

Richard Scheaffer  
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### Graduate Assistant:

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### Office Hours:

Tuesdays and Thursdays before and after class  
between 1:00 PM and 5:00 PM

### Office Hours:

Mondays and Wednesdays 2:00 to 3:45 PM  
Other times by appointment

### Course Objective:

This course is designed to provide a firm foundation in the basic theory of statistical inference. It covers the classical theory of estimation and hypothesis testing, as well as the theory of linear models and least squares. The probability theory taught in STA 4321 (or STA 5325) or equivalent is used in developing the theory of estimation and hypothesis testing in the course.

### Prerequisites:

STA 4321 or STA 5325

### Text:

D. D. Wackerly, W. Mendenhall, and R. L. Scheaffer, *Mathematical Statistics with Applications* (Sixth Edition) Duxbury 2002

### Course Coverage:

The topics covered will be those from Chapters 7-11 with additional topics from Chapters 12 and 13 as time permits.

### Grading Policy:

A student's grade is determined by performance on three in-class exams and a final exam, all of equal weight. Problems on exams will be similar to examples done in class, homework exercises, and some of the derivations done in class. Each exam will be worth 100 points, for a possible total of 400 points. Letter grades will be determined by the following scale:

|              |    |            |   |
|--------------|----|------------|---|
| 90% or above | A  | 70% to 75% | C |
| 86% to 89%   | B+ | 60% to 69% | D |
| 80% to 85%   | B  | Below 60%  | E |
| 76% to 79%   | C+ |            |   |

**Exam Dates:**

|            |   |
|------------|---|
| Exam 1     | Tuesday, February 5, 2008                             |
| Exam 2     | Tuesday, March 4, 2008                                |
| Exam 3     | Tuesday, April 1, 2008                                |
| Final Exam | Thursday, May 1, 2008 (Exam Group 1D, 3:00 – 5:00 PM) |

A student must notify her/his instructor prior to the time of an exam if the student cannot be present for the exam because of illness. Documentation must be provided. The Department of Statistics' policy toward make-up exams is firm: In particular, it is not able to provide make-up exams for students who would like to attend or participate in graduations, weddings, anniversaries, class reunions, family reunions, vacations, or other activities of a personal nature.

**Homework Exercises:**

A large number of homework exercises from the text will be assigned. Although the solutions to these problems will not be collected, it is strongly recommended that the student work on as many of the exercises as possible.

Chapter 7: 3, 5, 7, 9, 10, 11, 12, 13, 15, 18, 19, 20, 21, 23, 25, 29, 31, 33, 36, 37, 38, 39, 45, 46, 47, 49, 51, 61, 62, 63, 67, 68, 71, 78

Chapter 8: 1, 2, 3, 4, 5, 6, 8, 9, 13, 15, 17, 19, 21, 24, 25, 27, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 47, 50, 51, 52, 59, 61, 62, 64, 68, 69, 71, 72, 78, 81, 83, 87, 89, 109, 111, 112, 113

Chapter 9: 1, 2, 3, 5, 6, 9, 11, 12, 13, 14, 19, 20, 21, 24, 25, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 40, 49, 50, 51, 57, 61, 62, 63, 64, 66, 68, 72, 73, 74, 75, 77, 78, 80

Chapter 10: 2, 3, 5, 7, 9, 10, 11, 15, 18, 20, 23, 24, 27, 28, 29, 31, 32, 36, 38, 40, 41, 42, 43, 51, 52, 55, 60, 61, 67, 70, 73, 77, 79, 80, 81, 82, 83, 87, 89, 90

Chapter 11: 1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 27, 31, 32, 33, 35, 38, 39, 40, 42, 44, 45, 47, 49, 54, 55, 56, 57, 60, 61, 64, 68, 70, 77, 79, 80

Chapters 12 and 13: Will be assigned later, if at all.

**Academic Honesty:**

University of Florida students are expected to abide by the following: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."