

**Introduction to Statistics Theory (STA 4322 Section 7477)  
& Mathematical Methods of Statistics II (STA 5328 Section  
7480)  
Spring 2008**

**Course Objective:** The objective of STA 4322/ STA 5328 is to introduce students to the basic aspects of the theory of statistical inference. We will cover topics such as the  $\chi$ -square, t and F distributions, point estimation, Testing hypotheses, comparing two samples, and the analysis of variance. In particular, we will cover Chapters 5, 6, 7, 9 12, and 13 of “An Introduction to Mathematical Statistics and Its Applications (4th Edition)” by Richard J. Larsen and Morris L. Marx.

**Prerequisites:** STA 4321/STA 5325 or equivalent.

**Instructor:** Xueli (Shirley) Liu, room 101C Griffin-Floyd Hall, 392-1941 Ext 212, xueli@stat.ufl.edu.

**Lectures:** Tuesdays 8th and 9th period (3:00 p.m.–4:55 p.m.); Thursdays 9th period, room 0121 Little Hall.

**Office Hours:** Tuesday and Thursday, 5:00 p.m.–6:00 p.m. and by appointment.

**Course Website:** <http://www.stat.ufl.edu/~xueli/spring08/sta4322spring08.html>.

**TA:** The teaching assistant for this course will be Yingxia Wan. Her office hours and other contact information will be posted on the course web page.

**Course Outline:**

- A. Review of Discrete and Continuous Distributions.
- B. Review of Expectations, Variances, Correlation, MGF etc.
- C. Review of Law of Large Numbers and Central Limit Theorem.
- D. Chapter 5: 5.2, 5.3, 5.4, 5.5, 5.6, 5.7 .
- E. Chapter 6, 7: 6.2, 7.4, 6.3, 6.4, 6.5, 7.5.
- F. Chapter 9: 9.2, 9.3, 9.4, 9.5.

G. Chapter 12: 12.2, 12.3, 12.4.

H. Chapter 13: 13.2, 13.3.

**Textbook:** An Introduction to Mathematical Statistics and Its Applications (4th Edition) by Richard J. Larsen and Morris L. Marx, 2006, Prentice Hall.

**Exams:** Three exams will be given during the term (25%, 25%, 30% respectively). The remainder of the grade (20%) will be determined by quizzes and any homework problems that may be collected. Course averages of at least 90%, 80%, and 70% will guarantee letter grades of A, B, and C, respectively. Time and place of exams will be announced in class.

NO make-up exams will be given under any circumstances. If you have a VALID conflicting event scheduled during an exam, you may contact the instructor at least two weeks before the exam and an alternative exam will be scheduled before the exam.

**Attendance:** Classroom lecture attendance is fully expected although not strictly enforced. Any topic covered in lectures could be a potential exam topic unless otherwise stated.

**Homework Problems:** Most of the questions appearing on exams will be similar to examples from the lectures and to homework exercises. A list of suggested homework problems will be posted on the course web page. In order to master the course material and succeed on the exams, it is essential for the student to gain experience by solving problems on his/her own. Thus you should do as many of these exercises as you can, and make sure to ask about any that you do not understand.

**Academic Integrity:** Please familiarize yourself with the Student Honor Code and Academic Honesty Guidelines outlined in your University of Florida Student Guide at <http://www.dso.ufl.edu/judicial/honestybrochure.htm>.

**Reasonable Accommodations:** A request must be made to the instructor at least one week in advance of the date for which the accommodation is requested. To make a classroom accommodation request, make sure that you contact the Dean of Students Office and obtain a letter from them to submit to your instructor at the time of your request.