

STA 4322/5328 Introduction to Statistics Theory

Spring 2015

Instructor Hani Doss, 222 Griffin-Floyd Hall; Office Hours: MWF 9th period (4:05-4:55 pm) (if you come to see me, please do so before 4:40), or by appointment; Phone: 273-2991; email: `dossostat@ufl.edu` (do not ask questions regarding the course material by email)

Teaching Assistants

Mingyuan Gao (`gaomy@ufl.edu`)—218 GF; Office Hours: Thursday, periods 8 and 9.

Zeren Xing(`zeren.xing@ufl.edu`)—218 GF; Office Hours: Tuesday, periods 3 and 4.

Course Description This is a calculus-based course that gives a theoretical foundation for fundamental methods in statistical inference. It covers point estimation, confidence intervals, and hypothesis testing for models based on standard parametric families, and gives an introduction to linear regression. The course is designed to prepare the students for graduate-level work in statistics and related fields. This is fundamentally a theory course, not a course in applied statistics.

Grading Your final course grade will be based on the five components below, with the stated weights:

Midterm 1:	Monday February 16, 8:20 pm, room TBA; covers everything up to and including lecture of Friday February 13. Note evening time slot.	28%
Midterm 2:	Monday March 23, 8:20 pm, room TBA; covers everything up to and including lecture of Friday March 20 (with emphasis on material covered after Midterm 1). Note evening time slot.	28%
Midterm 3:	Wednesday April 22, 8:20 pm, room TBA; covers everything up to and including lecture of Monday April 20 (with emphasis on material covered after Midterm 2). Note evening time slot.	28%
Homework:	There will be about 10 homeworks assigned during the semester.	16%

Note the dates and times of the three midterms. You should clear your schedule now so that you do not have a conflict with these time slots.

A course average of 93-100 will guarantee an A, 90-92 at least an A-, 87-89 at least a B+, 83-86 at least a B, 80-82 at least a B-, etc. (The tests will be hard, and the actual cutoffs for the grades are very likely to be lower than these numbers.)

Prerequisites Prerequisites are:

- STA 4321 (Introduction to Probability)
- MAC 2311, 2312, 2313 (Calculus I, II, III)

If you have not taken all of these (or their equivalents), you may not register for this course.

Course Web Page [http : / / www .stat.ufl.edu/~doss/Courses/sta4322](http://www.stat.ufl.edu/~doss/Courses/sta4322)

Text *Mathematical Statistics with Applications* by Wackerly, Mendenhall, and Scheaffer (7th edition, 2008).

We will not follow the text closely.

Coverage Roughly, we will cover the material in Chapters **7-11** of the text (however, the level of this course is higher than that of the book, so there is no real correspondence between what we cover and these chapters). *Note that there will be material covered in lectures which is not found anywhere at all in the textbook, and you will be responsible for that material.*

Course Policies Homework must be turned in at the beginning of the lecture on the due date. Late homework will not be accepted. All work must be entirely your own.

All exams are closed-book, closed-notes; however, you may bring one 8.5 x 11 sheet of notes to the Midterm Examinations (you can write on both sides of the sheet). You should bring a calculator to the tests. Makeup exams must be approved before the time of the exam and will be given only in case of medical or family emergencies (which must be appropriately documented).

You are responsible for everything from lecture. Do not depend on the course web page for announcements regarding due dates for homeworks, changes in schedules, etc.

At least initially, I am going to use the projector, and distribute hard copies of the slides (electronic versions of the slides will *not* be available). The hard copies will be distributed once. I am not going to bring slides from the previous lecture for the benefit of those who didn't come to class. The notes that are passed out will be a skeleton of the lectures (in other words, they are going to be incomplete) with the missing material developed during the lecture. Therefore, skipping class and getting a copy of the notes is not going to work.

Cell phones should be turned off (or set on silent). Laptops must be shut.

If you feel you need special arrangements because of a disability please see me.