

STA 4322 - Introduction to Statistics Theory

Summer B 2022

Instructor:

Hongqiang Sun

Office Hours: After class or by appointment, via Zoom.

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Teaching Assistant:

Heejun Shin

Office Hours: Tuesday 5-6 PM, Thursday 5-6 PM (5-7 PM every other week), via Zoom

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Course Objectives:

The sequence of courses STA 4321-4322 provides a formal and systematic introduction to mathematical statistics for students who have passed three semesters of standard undergraduate level calculus. Major topics of STA 4322 include normal-theory sampling distributions, estimation methods, properties of point estimators, confidence intervals, hypothesis testing and related theory, and basic linear regression. The primary purpose of STA 4322 is preparation for graduate-level study in statistics and closely related subjects.

Prerequisite: STA 4321 or STA 5325.

Lecture:

Lectures will be delivered MTWRF from 12:30 PM - 1:45 PM in Room FLO 0100. Exams will be given during Friday class time.

This course requires steady and intensive effort throughout the semester. Lecture attendance in person is fully expected. You are responsible for learning all material presented during lecture, and any topic covered in lecture is a potential exam topic (unless otherwise stated).

Course Website:

Please check the Canvas website for this course regularly. Resources such as suggested reading, suggested homework problems, and special announcements will be posted there.

Required Text:

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

Homework:

There will be somewhere between five and ten graded homework assignments, typically due on Wednesdays and Fridays at 11:59 PM. These homework assignments will count for a total of 25% of the final grade. Students are expected to work independently on graded assignments unless otherwise specified in writing.

Additionally, there will be suggested textbook exercises posted as the course progresses. You are not expected to submit your answers to the suggested exercises, but you should solve all of them to thoroughly learn the material and best prepare yourself for exams. Students may work together to solve suggested exercises, but keep in mind that you will be assessed individually.

Homework policy:

The professor and Teaching Assistant make every effort to ensure that grades assigned are scrupulously fair and reflect the quality of the work concerned. Due to this process of consultation and the use of uniform grading criteria, the TA has complete authority in all actions that he undertakes regarding the HW, and the professor is unlikely to rescind any of her decisions. Please see the attached homework policy.

Exams:

Three mid-term exams are tentatively scheduled on July 8, July 22, and Aug 5, each worth 25% of the final grade. Exams will be administered in class from 12:30 PM - 1:45 PM in Room FLO 0100. Exams will be designed to only take 60 minutes to complete.

Course Grade: Grading will be based on a composite score: 25% graded homework assignments and 75% exams. Final letter grades will be assigned using the usual 10-point scale (90% for an A, 87% for an A-, 83% for a B+, 80% for a B, 77% for a B-, . . .). **All grades are final and not negotiable.**

COVID-19:

In response to COVID-19, the following recommendations are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- If you are not vaccinated, get vaccinated. Vaccines are readily available and have been demonstrated to be safe and effective against the COVID-19 virus. Visit one.ufl.edu for screening / testing and vaccination opportunities.
- If you are sick, stay home. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated.
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work.

Reasonable Accommodations:

To request classroom accommodation, please be certain that you have made all necessary arrangements with the Dean of Students Office, and obtain from them documentation to submit to the instructor at the time of your request. A request must be made to the instructor at least one week in advance of the date for which the accommodation is

requested. This course information and policies sheet can be made available in alternative formats to accommodate print-related disabilities. Contact the instructor for more information.

Academic Integrity:

Please familiarize yourself with the Student Honor Code and Academic Honesty Guidelines outlined in your University of Florida Student Guide and at <http://www.dso.ufl.edu/sccr/honorcode.php>

This syllabus is subject to change. You will be notified if there is a change.