

STA 4321 - Introduction to Statistics Theory

Summer A 2021

Instructor:

Bryant Davis
Email: davibf11@ufl.edu
Office Hours: MW 8:30 AM - 9:15 AM, or by appointment, via Zoom.

Teaching Assistant:

Hongqiang Sun
Email: sunh1@ufl.edu
Office Hours: TR 7-8 PM, via Zoom.

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. STA 4321/5325 introduces the background in probability that is necessary to understand the classical statistical theory introduced in STA 4322/5328. Major topics include the basic formal elements of probability, discrete and continuous random variables, multivariate distributions, distributions of functions of random variables, and fundamental limit theorems.

Prerequisite: MAC 2313 (or equivalent third semester calculus course). A well prepared student should have taken an introductory statistics course, such as STA 2023 or STA 3032.

Lecture and Attendance:

Lectures will be delivered synchronously MTWRF from 9:30 AM - 10:45 AM. The in-person section will meet in Pugh 120. Lectures will simultaneously be delivered for the online section via Zoom.

This course requires steady and intensive effort throughout the semester. Lecture attendance whether virtual or in person is fully expected, even if only casually enforced via pop quizzes. 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, Zoom recordings, 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 before class begins (9:30 AM). These homework assignments will count for a total of 15% 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.

Quizzes:

There will be periodic short pop quizzes administered at the end of class throughout the semester. These quizzes will count for a total of 10% of the final grade. Quizzes will not be difficult, but will be designed to ensure you are keeping up with the material. Quizzes will be multiple choice, and administered through Canvas.

Exams:

Three mid-term exams are tentatively scheduled on **May 21**, **June 4**, and **June 18**, each worth 25% of the final grade. Exams will be administered **in class from 9:30 AM - 10:45 AM**. Exams will be proctored through Honorlock. *Due to the nature of online exams via Canvas, it is important to keep in mind that technical issues may arise. Please try to plan accordingly by saving work, documenting issues, and preparing any relevant materials ahead of time.* Exams will be designed to only take 60 minutes to complete, with buffer time built in to account for potential technical issues.

Course Grade: Grading will be based on a composite score: 10% graded homework assignments, 90% 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.**

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.