

Limit Theory
STA 7334
Fall 2020

Instructor: Kshitij Khare

Email: kdkhare@stat.ufl.edu

Class: This will be a completely online class.

Lectures: We will follow an asynchronous lecture format for the class. I will record the lectures on zoom, and share the link with the students. The recorded lectures will be available before or at 10 am on Monday, Wednesday and Friday.

Office Hours: I will hold three office hours every week (Monday, Wednesday, Thursday 11:00 am - 12:00 pm). The recurring zoom link for the office hours is <https://ufl.zoom.us/j/99349670489>

Text: I will post typed lecture notes for most of the topics covered in class. Here are the topics that I plan to cover this semester.

1. Review of CLT and extensions to m-dependent random variables.
2. Empirical distribution functions, moments, quantiles and order statistics
3. U-statistics
4. Asymptotic properties of the MLE
5. Asymptotic properties of likelihood ratio tests
6. Jackknife and Bootstrap
7. Saddlepoint approximations
8. Asymptotic properties of the lasso (if time permits)

Homework: There will be two or three homework assigned during the semester. Homework is worth 20% of the final grade. No late homework will be accepted.

Exams: Two exams, a midterm (covering topics in the first half of the semester), and a final (covering topics in the second half of the semester) will each count for 40% of the final grade. The schedule will be announced by the second week of class.

Grading: The usual 10 point scale (90% for an A, 80% for a B, . . .) is tentatively adopted, but may be adjusted later. The final grading scale will be announced after the midterm.

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 form upon request.

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity