

STT 872: Statistical Inference I

Michigan State University, Spring 2021

Instructor: Shrijita Bhattacharya

EMAIL: bhatta61@msu.edu

OFFICE HOUR: Friday 1:30-3:30 p.m. or by appointment.

Lectures Schedule: Monday, Wednesday and Friday 11:30 AM - 12:20 PM

Zoom Link: <https://msu.zoom.us/j/97231658396>

Help Room: <https://stt.natsci.msu.edu/academics/statistics-learning-center/>

Course Web Page: All course materials and homeworks will be posted on D2L.

Prerequisites: STT 862 and STT 881 or equivalent courses.

Required Course Materials: *Theory of Point Estimation*, 2nd edition, by E.L. Lehmann and G. Casella (first book); *Testing Statistical Hypotheses*, 3rd edition, by E.L. Lehmann (second book); *Theoretical Statistics*, Topics for a Core Course, by R.W. Keener (third book).

Topics to be covered: Topics from Chapters 1–5 in the first book, Chapters 3–4 in the second book, Chapters 1–5, 7–8, 10–12, 15 in the third book and lecture notes.

Attendance: You are expected to attend all meetings of the class. If you miss a class for whatever reason, you are responsible for all covering materials, assignments and deadlines.

Examinations: There will be **two** 50-minute Midterm Exams each given during lecture time. The Mid-terms cover (approximately) the following material:

February 19	Exam 1	Chapters 1–2 (first book), Chapters 1–5,8 (third book).
March 26	Exam 2	Chapters 3–5 (first book), Chapters 7,10–11 (third book).

A **comprehensive** final exam will be given on Thursday, April 29 at 12:45 PM-2:45 PM.

If you are unable to take an exam, you must contact the instructor on or before the day of the exam. All excuses must be verifiable. The make-up exams will be given only under exceptional circumstances.

Homework: There will be ten homeworks to turn in. Homeworks shall be assigned every Friday and collected on the following week Friday (unless mentioned otherwise). Unexcused late homework (turned in up to one class date late) is given only 60% credit. Later homework is given no credit. There is no make-up for homework.

Grading: Homework: 30%, Exam 1: 20%, Exam 2: 20%, Final exam: 40%.

4.0 : $90\% \leq \text{Score} < 100\%$	2.0 : $60\% \leq \text{Score} < 65\%$
3.5 : $80\% \leq \text{Score} < 90\%$	1.5 : $55\% \leq \text{Score} < 60\%$
3.0 : $70\% \leq \text{Score} < 80\%$	1.0 : $50\% \leq \text{Score} < 55\%$
2.5 : $65\% \leq \text{Score} < 70\%$	0.0 : $0\% \leq \text{Score} < 50\%$

Academic Honesty: The Department of Statistics and Probability adheres to the policies of academic honesty as specified in the General Student Regulations 1.0, Protection of Scholarships and Grades, and in the All-University of Integrity of Scholarships and Grades which are included in Spartan Life: Student Handbook and Resource Guide. Plagiarism or any other sort of fraudulent behavior in exam and/or homework assignment will result in an automatic zero in that exam and/or homework assignment.

Disclaimer: The instructor reserves the right to make any changes she considers academically advisable. Changes will be announced in class and on the course web page. It is students' responsibility to keep up with any changed policies and assignments.

Important Dates:

Jan 20	Classes begin.
Jan 25	End of add period.
Feb 02	Last day for 100% refund.
Feb 19	Exam 1 (11:30 AM-12:20 PM).
Mar 02-03	Break.
Mar 10	Middle of semester.
Mar 26	Exam 2 (11:30 AM-12:20 PM).
Apr 21	Last day of classes.
Apr 29	Final exam (12:45 PM-2:45 PM).