STAT:4101 Mathematical Statistics Spring 2024

Meeting Time MWF 8:30–9:20 a.m. 14 SH

Instructor Dr. Aixin Tan, 259 SH, 335-0821, aixin-tan@uiowa.edu

Dr. Tan's Office Hours MWF 11:30am-12:15pm, or by appointment

Teaching Assistant Yan Shen yan-shen@uiowa.edu

Yan's Office Hours TBD

Course Website. I will post announcements, homework problems, lecture notes, and other course information in ICON http://icon.uiowa.edu.

Course Description and Objectives. This course is a continuation of STAT:4100. It is intended for upper-level undergraduate students in the mathematical sciences as well as for graduate students in all disciplines. The goal is to give students a solid foundation in the theory and methods of statistical inference. Main topics include convergence in distribution and convergence in probability, point estimation, confidence intervals, and testing of statistical hypotheses.

Prerequisites. STAT:4100

Textbook. Introduction to Mathematical Statistics (8th ed.) Hogg, McKean and Craig, (Prentice Hall). ISBN-10: 0134686993. We aim to cover chapters 4-8.

The ICON Direct program will be used. Your U-Bill will be charged automatically after your course has started, unless you opt out prior to the last day for tuition and fee reduction course deadline. If you use this option, check out your textbook in your ICON course. The Unizin Engage link needs to be in your ICON course navigation menu on the left of your course site.

Optional reading. For students looking for additional learning materials, consider *All of Statistics: A Concise Course in Statistical Inference* by Larry Wasserman. (On course reserve at the UI main library.)

Grading. Your semester grade will consist of the following components:

Homework	13%	
Quizzes	8%	
Midterm Exam 1	22%	week of Feb. 26 (tentative)
Midterm Exam 2	22%	week of Apr. 8 (tentative)
Final Exam	35%	TBD by the University.
Total	100%	

As a rough guide, A,A=90%-100%, B+B,B=80%-90%, C+C,C=70%-80%.

Quizzes and Exams. Quizzes will be brief and emphasize examples and key concepts repeatedly mentioned in class as well as homework problems. All exams will be closed book. The final exam will be comprehensive.

Attendance is required.

Dept. of Statistics and Actuarial Science 241 SH, http://www.stat.uiowa.edu Prof. Chan, DEO, kung-sik-chan@uiowa.edu, 335-0712.

College of Liberal Arts and Sciences: Policies and Procedures

• Mental Health Resources and Student Support

Students are encouraged to be mindful of their mental health and seek help as a preventive measure or if feeling overwhelmed and/or struggling to meet course expectations. Students are encouraged to talk to their instructor for assistance with specific class-related concerns. For additional support and counseling, students are encouraged to contact University Counseling Service (UCS). Information about UCS, including resources and how to schedule an appointment, can be found at counseling.uiowa.edu. Find out more about UI mental health services at mentalhealth.uiowa.edu.

Student Care and Assistance provides assistance to University of Iowa students who are experiencing a variety of crisis and emergency situations, including but not limited to medical issues, family emergencies, unexpected challenges, and sourcing basic needs such as food and shelter. More information on the resources related to basic needs can be found at basicneeds.uiowa.edu/resources/. Students are encouraged to contact Student Care & Assistance in the Office of the Dean of Students (Room 135 IMU, dos-assistance@uiowa.edu, or 319-335-1162) for support and assistance with resources. University Policies

- Accommodations for Students with Disabilities The University is committed to providing an educational experience that is accessible to all. If a student has a diagnosed disability or other disabling condition that may impact the student's ability to complete the course requirements as stated in the syllabus, the student may seek accommodations through Student Disability Services (SDS). SDS is responsible for making Letters of Accommodation (LOA) available. The student must provide an LOA to the instructor as early in the semester as possible, but requests not made at least two weeks prior to the scheduled activity for which an accommodation is sought may not be accommodated. The LOA will specify what reasonable course accommodations the student is eligible for and those the instructor should provide. Additional information can be found on the SDS website.
- Free Speech and Expression https://provost.uiowa.edu/teaching-resources/course-syllabi-information#free-speech-and-expression
- Absences for Religious
 Holy Days https://opsmanual.uiowa.edu/students/absences-class#8.2
- Classroom Expectations https://provost.uiowa.edu/teaching-resources/course-syllabi-information#classroom-expectations
- Non-discrimination https://provost.uiowa.edu/teaching-resources/course-syllabi-information#non-discrimination-statement
- Sexual Harassment/Misconduct and Supportive Measures https://provost.uiowa.edu/teaching-resources/course-syllabi-information#sexual-harassment-sexual-misconduct-and-supportive-measures
- Sharing of Class Recordings (if applicable) https://provost.uiowa.edu/teaching-resources/course-syllabi-information#sharing-of-class-recordings-if-appropriate