

STAT:3120
Section 0001

Probability and Statistics
Fall 2024

Lectures	MW 11:30 a.m. — 1:20 p.m., S307 PBB
Instructor	Dr. Aixin Tan, 259 SH, aixin-tan@uiowa.edu
Instructor's Office Hours	MW 1:20 p.m. — 2:50 p.m. Students are invited to drop by 259 SH during these hours to discuss questions about course materials or concerns. I am also available by appointment (can be in person or by zoom).
Questions by email	You are always welcome to email me questions. Mention STAT:3120 in the email title. I usually reply within a day.
Assistant/Grader	Mingyu Huang, 366 SH, mingyu-huang@uiowa.edu
Assistant's Office Hours	Thur 2 – 3 p.m.

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

Course Home. The College of Liberal Arts and Sciences (CLAS) is the home of this course, and CLAS governs the add and drop deadlines, academic misconduct policies, and other undergraduate policies and procedures. Other UI colleges may have different policies. The Course Home Department is Statistics and Actuarial Science, 241 SH. DEO: Dr. Kung-Sik Chan, 241 SH, 335-0712, kung-sik-chan@uiowa.edu

Course Description and Learning Objectives. The goal of this course is to introduce the theory of random variables, probability distributions, and making statistical inference from data. Most sections of Chapters 1–9 of the textbook will be covered.

Prerequisites. The course prerequisites are the mathematics courses MATH:1860 or MATH:1560, or equivalents. Basically, a good, year-long course in calculus, including multivariable calculus.

Textbook. Hogg, Tanis, and Zimmerman (2018). Probability and Statistical Inference, 10th ed, Pearson.

Additional Optional Resources.

Durrett (2021 Beta test version). Elementary Probability for Applications. Freely available at https://services.math.duke.edu/~rtd/EP4A/EP4A_April2021.pdf.

Larry Wasserman (2004) All of Statistics – A Concise Course in Statistical Inference.

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

Homework	10%	
Quizzes	5%	
Midterm Exam 1	25%	week of Sep. 29 (tentative)
Midterm Exam 2	25%	week of Nov. 10 (tentative)
Final Exam	35%	week of Dec. 16 (to be determined by the University in October)
Total	100%	

As a **rough** guide, **A,A-** = 90% – 100%, **B+,B,B-** = 80% – 90%, **C+,C,C-** = 70% – 80%, **D+,D,D-** = 60% – 70% .

Quizzes and Exams. Quizzes (some given in class, some on-line via ICON) and Exams (in class) will emphasize examples, key concepts and techniques that are repeatedly mentioned in class and encountered in homework problems. All in-class tests will be closed book. The final exam will be comprehensive.

Makeup policy for Quizzes and Exams. In case of illness or emergency, contact the instructor in person or by email **prior** to the exam or quiz. Each case will be reviewed individually.

Homework. Generally, homework will be assigned every Wednesday in ICON, and due in ICON the next Wednesday. The deadline will be clearly shown in ICON/Assignment. Homework submissions up to 36 hours late will receive a 20% penalty, those between 36 and 72 hours late a 40% penalty. **A Homework submission that is more than 72 hours late receives a score of zero unless** the delay is due to “illness, mandatory religious obligations, or other unavoidable circumstances or University activities” that were communicated to the instructor **prior to the original deadline**. Homework solutions will be posted in ICON a few days after the due dates.

Each week, the grader will randomly pick a subset of the assigned problems, and your homework grades solely depend on your solution to the randomly picked problems. So it is important that you attempt all the assigned problems. Note, there will be no homework assignments that give “bonus credit” to individual students to help their grade. However, **the lowest two homework scores will be dropped**, meant to cover all unexpected emergent situations.

Unless stated otherwise, **to receive full credit, show your work when solving homework problems instead of just present a numerical result**. You are encouraged to discuss and study with others. But **the submitted work must reflect your own effort**. If you do discuss with others on homework assignments, please: (a) write up your own assignment and make sure you completely understand all solutions that you submit, and (b) write the names of the others in your study group on your assignment.

Attendance is required. Attendance and Absence Policies

Academic Honesty and Misconduct

All students in CLAS courses are expected to abide by the college's standards of academic honesty. Undergraduate academic misconduct must be reported by instructors to CLAS according to these procedures. Graduate academic misconduct must be reported to the Graduate College according to Section F of the Graduate College Manual.

Student Complaints

Students with a complaint about a grade or a related matter should first discuss the situation with the instructor and/or the course supervisor (if applicable), and finally with the DEO (Chair) of the department, school or program offering the course. Sometimes students will be referred to the department or program's Director of Undergraduate Studies (DUS) or Director of Graduate Studies (DGS).

Undergraduate students should contact CLAS Undergraduate Programs for support when the matter is not resolved at the previous level. Graduate students should contact the CLAS Dean's Office when additional support is needed.

Drop Deadline for this Course

You may drop an individual course before the drop deadline; after this deadline you will need collegiate approval. You can look up the drop deadline for this course here. When you drop a course, a "W" will appear on your transcript. The mark of "W" is a neutral mark that does not affect your GPA. To discuss how dropping (or staying in) a course might affect your academic goals, please contact your Academic Advisor. Directions for adding or dropping a course and other registration changes can be found on the Registrar's website. Undergraduate students can find policies on dropping CLAS courses here. Graduate students should adhere to the academic deadlines and policies set by the Graduate College.

Communication: UI Email

Students are responsible for all official correspondences sent to their UI email address (uiowa.edu) and must use this address for any communication with instructors or staff in the UI community. For the privacy and the protection of student records, UI faculty and staff can only correspond with UI email addresses.

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 course-related concerns. For additional mental health support, please see the guidance and resources at mentalhealth.uiowa.edu, including the 24-7 UI Support and Crisis Line.

Additionally, the Office of the Dean of Students can help students navigate personal crisis situations. They can provide one-on-one support, help with identifying options, and access to basic needs resources (such as food, rent, childcare, etc.).

Student Care and Assistance: 132 IMU, dos-assistance@uiowa.edu, or 319-335-1162. More info: dos.uiowa.edu/assistance.

Accommodations for Students with Disabilities

The University is committed to providing an educational experience that is accessible to all students. 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 to the student. 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.