STAT 3100   Introduction to Mathematical Statistics I
Section 1   **Fall 2025**

Lectures	M/W/F 2:30 p.m. – 3:20 p.m., W151 Pappajohn Business Building (PBB)
	Th 3:30 p.m. – 4:20 pm., W151 PBB
	Note: the Thursday lecture will be led by a teaching assistant.
Instructor	Dr. Nathan Wikle, `nathan-wikle@uiowa.edu`
Office Hours	W 1:30–2:20pm, 3:30–4:30pm; Th 2:00–3:00 p.m., 207 Schaeffer Hall (SH)
	Students are welcome to stop by my office during these hours to discuss questions about the course material or other concerns. I am also available by appointment.
Teaching Assistants	Sumedha Dhar, `sumedha-dhar@uiowa.edu`
	Shuyuan Wang, `shuyuan-wang@uiowa.edu`
Course Website	https://icon.uiowa.edu
	Announcements, course materials (e.g., homework problems, lecture notes, etc.), and other information will be regularly posted in ICON.

Course Description and Objectives. This course introduces students to the theory of random variables and probability distributions, including: fundamental properties of probability, discrete distributions, continuous distributions, bivariate distributions, and distributions of functions of random variables. In general, this corresponds to Chapters 1–5 of the textbook.

Upon completion of this course, students will have an understanding of elementary concepts in probability and statistics, and they will be prepared for more advanced classes in statistical inference (e.g., STAT:3101).

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

Prerequisites. MATH:1860 or MATH:1560, or equivalents (i.e., undergraduate calculus), are required prerequisites for this course. If you are unsure you satisfy these requirements, please talk with the instructor.

Students majoring in Actuarial Science are also strongly encouraged to add ACTS:3110 (Actuarial Exam P Preparation). This 1-hr prep course is offered on an S-F basis for graduate and undergraduates. It is designed to work through a variety of probability problems (overlapping with much of the material in STAT:3100), so that students will be successful on the SOA / CAS "P" professional examination.

Course Home. The College of Liberal Arts and Sciences (CLAS) is the home of this course, and CLAS governs the add and drop deadlines, the "second-grade only" option (SGO), 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, `kung-sik-chan@uiowa.edu`

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

Homework	30%	
Participation (Thursday Math Review)	10%	
Midterm Exam 1	15%	week of Sep. 22–26 (tentative)
Midterm Exam 2	15%	week of Oct. 27–31 (tentative)
Final Exam	30%	week of Dec. 15–19 (to be determined by University)
Total	100%	

A "plus-minus" grading scale will be used for this class. As a rough guide, the scale is as follows:

- A, A- → [90%, 100%]

- B+, B, B- → [80%, 90%)

- C+, C, C- → [70%, 80%)

- D+, D, D- → [60%, 70%)

- F → [0%, 60%)

Exams. This class will have two midterms and one final exam; the final exam will be comprehensive. All exams will be closed book unless otherwise notified.

Final Exam. The final exam will take place the week of Dec. 15–19. The exact date, time, and location will be determined by the University's Office of the Registrar. The final exam schedules are published the fifth week of the semester (Sep. 22–26). Attendance is mandatory.

Makeup policy for Exams. In case of illness or emergency, contact the instructor in person or by email prior to the exam. Each case will be reviewed individually. Please see the University's policies for absences from scheduled exams.

Homework. Homework will usually be assigned on Fridays and will be due the following Friday. Homework submission will be online (via ICON) and students are expected to upload a scanned (or typed) copy of their homework. Your work and its scanned (or typed) copy must be legible and include your name at the top to receive credit. Any exceptions will be announced in class or via ICON. Due to time constraints, the grader may grade only some of the assigned questions, but you are responsible for understanding all questions.

Unless stated otherwise, to **receive full credit, show your work** when solving homework problems instead of just presenting 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.

Unless prior arrangements are made with me well in advance (for reasons judged to be acceptable by me), **late homework will receive zero credit**. However, to help cover for any unexpected emergencies, **your lowest homework score will be dropped** at the end of the semester.

Attendance. Attendance is required; relevant attendance and absence policies can be found here.

Participation. Class participation will be assessed via attendance and participation at lecture. This includes attendance at the weekly course review section held on Thursdays from Th 3:30 p.m. – 4:20 pm in W151 PBB. This section will review mathematical concepts that you will see repeatedly in STAT:3100 and STAT:3101 as well as material from M/W/F lecture.

Academic Honesty and Misconduct. All students in CLAS courses are expected to abide by the CLAS Code 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.

Artificial Intelligence (AI) Policy. Students may use AI on homework, however, all final solutions must be written by the student. Furthermore, it is recommended that AI be used sparingly, as it is the student's responsibility to understand the concepts and problem solving skills necessary to complete the homework. These skills will ultimately be assessed on exams, during which any AI use is prohibited.

Student Complaints. Students with a complaint about a grade or a related matter should first discuss the situation with the instructor, and finally with the Director or Chair of the school, department, or program offering the course.

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 Associate Dean for Graduate Education and Outreach and Engagement when additional support is needed.

Drop Deadline for this Course. You may drop an individual course before the 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. 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.

Accommodations for Students with Disabilities. UI is committed to an educational experience that is accessible to all students. A student may request academic accommodations for a disability (such as mental health, attention, learning, vision, and physical or health-related conditions) by registering with Student Disability Services (SDS). The student is then responsible for discussing specific accommodations with the instructor. More information is available here.

Additional University Resources and Policies.

- Basic Needs and Support for Students

- Classroom Expectations

- Exam Make-up Owing to Absence

- Free Speech and Expression

- Mental Health

- Military Service Obligations

- Non-discrimination

- Religious Holy Days

- Sexual Harassment/Misconduct and Supportive Measures

- Sharing of Class Recordings