STAT:4100  Mathematical Statistics I

Instructor: Joyee Ghosh

Contact Information:

- Office: 372 SH
- Phone: (319)-335-0816
- Email: joyee-ghosh@uiowa.edu

Class Time & Location: 9:30 AM–10:20 AM MWF    112 MH

Instructor Office Hours: Monday: 11:20 AM–12:00 noon and 2:00–3:00 PM, Wednesday: 11:20 AM – 12:00 noon, Friday: 11:20 AM – 12:00 noon, or by appointment.

Department Information: Department of Statistics and Actuarial Science, 241 Schaeffer Hall, Phone: 335-2082

Departmental Executive Officer: Professor Joseph Lang, 241 SH, Phone: 335-0712.

Course Prerequisite: The course prerequisites are the mathematics courses MATH 2700 (22M:027) and MATH 2850 (22M:028), or equivalents: undergraduate calculus including linear algebra. Undergraduate students often complete STAT:3120 (22S:120) or STAT:3100 (22S:130) prior to taking STAT:4100 (22S:153).

Required Textbook: Introduction to Mathematical Statistics, 7th ed., Hogg, McKean and Craig, (Prentice Hall). We will cover chapters 1-3 and possibly some part of chapter 4.

Course Website: I will post announcements, homework problems, lecture notes, and other course information on ICON.

Course Description and Objectives: This is a course in mathematical statistics intended for upper-level undergraduate students in the mathematical sciences as well as for graduate students in all disciplines. The goal is to provide a solid foundation in the theory of random variables and probability distributions.
Grading: Your semester grade will consist of the following components:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Midterm Exam-I</td>
<td>22.5%</td>
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<tr>
<td>Midterm Exam-II</td>
<td>22.5%</td>
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<tr>
<td>Final Exam</td>
<td>35%</td>
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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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A plus-minus grading system will be used. As a rough guide: A, A-: 88% – 100%, B+, B, B-: 77% – 88%, C+, C, C-: 61% – 77%, D: 50% – 61%, F: <50%.

- **Homework**: Homework will be usually assigned on Wednesdays and due on the following Wednesday at the beginning of the class. Due to time constraints, the grader may grade only some of the assigned questions, but you are responsible for understanding all questions. Unless prior arrangements are made well in advance, for reasons judged to be acceptable by me, late homework will receive zero credit as solutions will be posted soon after the homework is due.

- **Exams**: There will be two 50-minutes in-class midterms and a two-hour comprehensive final exam. Please bring your calculators for the exams, and any necessary statistical tables will be provided. All exams are closed book and closed notes, but you can bring one 8.5”x11” page of handwritten notes (both sides) for each midterm exam and two 8.5”x11” pages of handwritten notes (both sides) for the final exam. If an exam is missed, a make-up exam will be permitted only if the circumstances of missing the exam satisfy university policies (proper documentation will be required in such a case).

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<tr>
<th>Exam</th>
<th>Date</th>
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<tr>
<td>1. Midterm One</td>
<td>9:30 AM, Friday, September 29 (tentative)</td>
<td>TBA</td>
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<td>2. Midterm Two</td>
<td>9:30 AM, Friday, November 3 (tentative)</td>
<td>TBA</td>
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<tr>
<td>3. Final</td>
<td>TBA</td>
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- **Quizzes**: There will be a few announced closed book and closed notes 15-minutes or so quizzes towards the end of class period. Please bring your calculators for quizzes, and any necessary statistical tables will be provided. Formula sheets are not allowed for quizzes. The policy on make-ups for quizzes is identical to the policy for exams.

- **Attendance**: Regular attendance is expected but attendance will not be taken.

- **Classroom Environment**: Activities which are unacceptable are (1) prolonged conversation with a fellow student, and (2) talking/texting on cell phones. Please turn off cell phones when in class.
College of Liberal Arts and Sciences: Policies and Procedures

Administrative Home

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at https://clas.uiowa.edu/students/handbook.

Electronic Communication

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences. (Operations Manual, III.15.2, k.11.)

Accommodations for Disabilities

The University of Iowa is committed to providing an educational experience that is accessible to all students. A student may request academic accommodations for a disability (which includes but is not limited to mental health, attention, learning, vision, and physical or health-related conditions). A student seeking academic accommodations should first register with Student Disability Services and then meet with the course instructor privately in the instructor’s office to make particular arrangements. Reasonable accommodations are established through an interactive process between the student, instructor, and SDS. See https://sds.studentlife.uiowa.edu/ for information.

Nondiscrimination in the Classroom

The University of Iowa is committed to making the classroom a respectful and inclusive space for all people irrespective of their gender, sexual, racial, religious or other identities. Toward this goal, students are invited to optionally share their preferred names and pronouns with their instructors and classmates. The University of Iowa prohibits discrimination and harassment against individuals on the basis of race, class, gender, sexual orientation, national origin, and other identity categories set forth in the University’s Human Rights policy. For more information, contact the Office of Equal Opportunity and Diversity, diversity@uiowa.edu, or visit diversity.uiowa.edu.

Academic Honesty

All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the College’s Code of Academic Honesty: “I pledge to do my own academic work and
to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty.” Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (see CLAS Academic Policies Handbook).

CLAS Final Examination Policies

The final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar’s web site and will be shared with instructors and students. It is the student’s responsibility to know the date, time, and place of a final exam.

Making a Suggestion or a Complaint

Students with a suggestion or complaint should first visit the instructor, then the course supervisor, and then the departmental DEO. Complaints must be made within six months of the incident. See the CLAS Student Academic Handbook.

Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Public Safety web site.