**Stat 3100: Introduction to Mathematical Statistics**

**Lecture times and location:** Section 1: 8:30–9:20 AM MWF in 40 Schaeffer Hall. Section 2: 10:30–11:20 AM MWF in Schambaugh Auditorium.

**Instructor:** Colin Lewis-Beck  
Office: 256 Schaeffer Hall  
Email: colin-lewis-beck@uiowa.edu  
Zoom office hours: W 3:30 - 5 PM, Th 11:00 - 12:30 PM

**Grader:** Jiantong Li  
Office: 241 Schaeffer Hall  
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**DEO:** Dr. Kung-Sik Chan, 241 Schaeffer Hall, 319-335-0712

**Prerequisites:** Math 1860 or 1560

**Course description:** This course is the first of a two-semester sequence designed to introduce students to mathematical statistics. The following topics will be covered this fall: basic probability, discrete distributions, continuous distributions, bivariate distributions, and functions of random variables. These topics roughly correspond to Chapters 1 - 5 of the textbook. This is a mathematical course. There will occasionally be software demonstrations in class, but no computing is required.

**Text:** The required textbook for this class is: Hogg, Tanis, and Zimmerman (2019). *Probability and Statistical Inference, 10th edition*, Pearson.

**Course webpage:** ICON (http://icon.uiowa.edu) has course information, notes, assignments, solutions, exam preparation materials, and access to grades.

**Assessment:** Your final course grade is computed based on the following proportions:

- 30% Homework
- 40% Two take-home exams
- 30% Final take-home exam

**Homework:** Approximately ten homework assignments will be assigned throughout the semester. Late homework submissions will **not** be accepted unless permission to turn in the homework late has been granted by the instructor prior to the due date. Such permission will be given at the discretion of the instructor and will only be given in extraordinary circumstances. The worst homework will be dropped. Homework is to be completed and submitted individually. Group work is encouraged but all answers must be unique to the student.

**Submitting Homework:** Because of COVID-19, all homework will be submitted though ICON. In order for the homework to be graded you **must** upload the assignment as a pdf document.

**In-semester exams:** There will be two in-semester exams, each of the two worth 20% of your final course grade. The tentative dates for these exams are October 2 (Friday), November 13 (Friday), but these
dates are subject to change. The changes, if any, will be announced at least one week before the exam dates. The exam will be posted on Friday and due by the following Monday on ICON.

**Final exam:** Because the course moves online after Thanksgiving, the final will also be a take home exam.

**Email Etiquette:** I will do my best to answer email questions within 24 hours. Here are a few suggestions to ensure I answer your email:

- Check the syllabus/announcements/slides before emailing; try to figure things out yourself first.
- Start your email by addressing me (Dear/Hi Colin).
- Be clear and concise.
- Use correct spelling and proper grammar.
- Be polite when making requests - do not make demands.
- End your email with a closing and your name.
UI and the College of Liberal Arts and Sciences  
Information for Undergraduates

Absences and Attendance
Students are responsible for attending class and for contributing to the learning environment of a course. Students are also responsible for knowing their course absence policies, which will vary by instructor. All absence policies, however, must uphold the UI policy related to student illness, mandatory religious obligations, including Holy Day obligations, military service obligations, unavoidable circumstances, or University authorized activities. Students may use the CLAS absence form to aid communication with the instructor who will decide if the absence is excused or unexcused. The form is on ICON in the top banner under “Student Tools.” More information is at https://clas.uiowa.edu/students/handbook/attendance-absences.

Academic Integrity
All undergraduates enrolled in courses offered by CLAS have, in essence, agreed to the College’s Code of Academic Honesty. Misconduct is reported to the College, resulting in suspension or other sanctions, with sanctions communicated with the student through UI email. Visit this page for information: https://clas.uiowa.edu/students/handbook/academic-fraud-honor-code.

Accommodations for 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 condition) by registering with Student Disability Services (SDS). The student is then responsible for discussing specific accommodations with the instructor. More information is at https://sds.studentlife.uiowa.edu/.

Administrative Home of the Course
The College of Liberal Arts and Sciences (CLAS) is the administrative home of this course and governs its add/drop deadlines, the second-grade-only option, and related policies. Other colleges may have different policies. CLAS policies may be found here: https://clas.uiowa.edu/students/handbook.

Class Behavioral Expectations
Students are expected to comply with University policies regarding appropriate classroom behavior as outlined in the Code of Student Life. This includes the policies and procedures that all students have agreed to regarding the Steps Forward for Fall 2020 in response to the COVID-19 pandemic. Particularly, all students are required to wear a face covering when in a UI building, including a classroom. In addition, the density of seats in classrooms has been reduced; in some instances, this will allow 6 feet or more between students while other cases, it may be less. Regardless, wearing a face covering and maintaining as much distance as possible are vital to slowing the spread of COVID19. In the event that a student disrupts the classroom environment through their failure to comply with the reasonable directive of an instructor or the University, the instructor has the authority to ask that the student immediately leave the space for the remainder of the class period. Additionally, the instructor is asked to report the incident to the Office of Student Accountability for the possibility of additional follow-up. Students who need a temporary alternative learning arrangement related to COVID-19 expectations should contact Student Disability Services (https://sds.studentlife.uiowa.edu/fall-2020/covid-19-temporary-learning-arrangements/) or +1 319 335-1462.

Class Recordings: Privacy and Sharing
Some sessions of a course could be recorded or live-streamed. Such a recording or streaming will only be available to students registered for the course. These recordings are the intellectual property of the faculty, and they may not be shared or reproduced without the explicit written consent of the faculty.
member. Students may not share these sessions with those not in the class; likewise, students may not upload recordings to any other online environment. Doing so is a breach of the Code of Student Conduct and, in some cases, a violation of the Federal Education Rights and Privacy Act (FERPA).

Communication and the Required Use of UI Email

Students are responsible for official correspondences sent to their UI email address (uiowa.edu) and must use this address for all communication within UI (Operations Manual, III.15.2).

Complaints

Students with a complaint about an academic issue should first visit with the instructor or course supervisor and then with the Chair of the department or program offering the course; students may next bring the issue to the College of Liberal Arts and Sciences; see this page for more information: https://clas.uiowa.edu/students/handbook/student-rights-responsibilities.

Final Examination Policies

The final exam schedule is announced around the fifth week of classes; students are responsible for knowing the date, time, and place of a final exam. Students should not make travel plans until knowing this information. No exams of any kind are allowed the week before finals with very few exceptions made (for labs, ESL and some world language courses, and off-cycle courses): https://registrar.uiowa.edu/final-examination-scheduling-policies.

Nondiscrimination in the Classroom

The University of Iowa is committed to making the classroom a respectful and inclusive space for people of all gender, sexual, racial, religious, and other identities. Toward this goal, students are invited in MyUI to optionally share the names and pronouns they would like their instructors and advisors to use to address them. 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 (https://diversity.uiowa.edu/eod +1 319 335-0705).

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 must uphold the UI mission and contribute to a safe environment that enhances learning. Incidents of sexual harassment must be reported immediately. For assistance, please see https://osmrc.uiowa.edu/