STAT:5100 Statistical Inference I Fall, 2020

- 1. Instructor: Kung-Sik Chan SH 241 335-2849 kung-sik-chan@uiowa.edu office hours: MTF 1:30-2:20pm, or by appointment; all office hours will be conducted via zoom.
- 2. Department: Statistics and Actuarial Science DEO contact information (Kung-Sik Chan, 241 SH, 335-2849,

kung-sik-chan@uiowa.edu)

3. Time and location of class: 10:30am - 11:20am MWF; 14 SH

This course will be taught in person and broadcast live on zoom to accommodate students with approved temporary alternative learning arrangements. The lectures will be recorded and posted on ICON. Also, we will switch to online after the Thanksgiving Break.

4. Textbooks:

"Statistical Inference" by G. Casella and R.L. Berger

We will cover chapters 1 to 5 of the textbook "Statistical Inference." We aim to give a relatively rigorous treatment on several probabilistic topics that provide the foundation of statistical inference. Topics include review of probability, distribution theory (multiple random variables, moment-generating functions, transformations, conditional distributions), sampling distributions, order statistics, convergence concepts, generating random samples.

- 5. Prerequisite: MATH:2850 and STAT:3101
- 6. Course requirements:

	date	percent
Homework		20%
Quizzes	9/2, 9/16, 10/9, 10/21, 11/9	20%
Exams	9/28 (Monday), 10/30 (Friday), 11/18 (Wednesday)	60%

Several homework assignments will be given. Discussion with fellow students on the exercises of the homework is allowed, but each student must write their own solutions. The homework (quiz) with the lowest score will be dropped from the determination of the final grade. Exams and quizzes are closed book. No crib sheet is allowed. There will be no final exam.

- 7. The teaching assistant Mr Chuyi Wang will hold weekly office hour on zoom, from 3:40-4:30pm Tuesday. During the office hours, Mr. Chuyi Wang chuyi-wang@uiowa.edu will answer questions on course materials and work out further examples for illustrating the concepts taught in the class.
- 8. Grading policy: Your grade for this course will be assigned according to the following *approximate* scale:

90 100 Α to В 80 to 89  $\mathbf{C}$ 70 79 to 60 to 69 D 0 to

This scale is not absolute, and the cutoff points may vary depending on the difficulty of the exams. Also, borderline cases may receive a + or -. The College and EPC ask that the A+ grade be used only in extraordinary situations.

9. On the following two pages, we list some information from the College of Liberal Arts and Sciences.

# 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/; +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/.