The University of Iowa The College of Liberal Arts and Sciences Fall, 2024

STAT 1020:0CCC Elementary Statistics and Inference

Course meeting time and place: MWF 11:30 – 12:20 p.m. C20 PC

Department of Statistics: https://stat.uiowa.edu/

Course ICON site: To access the course site, log into Lowa Courses Online (ICON)

https://icon.uiowa.edu/index.shtml using your Hawk ID and password

Instructor: Alex Liebrecht

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Office: 221 SH

Phone: (319) 335-1038

Office Hours: MWF 12:30 – 1:30 p.m.

TAs: TBD

Graders: TBD

DEO: Kung-Sik Chan

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Office: 241 SH

Attendance: Attendance at discussion is highly recommended and required. Attendance at lecture is highly recommended, but is not part of your grade. Lectures are not recorded or broadcast via Zoom but you can find complete notes on ICON.

Description of Course: The main objective of this course is to introduce students to basic statistical concepts for summarizing, analyzing and presenting data. Main topics include regression, prediction, probability, estimation, and tests of significance.

Learning Objectives: This course is approved for the general education "quantitative or formal reasoning" requirement. Courses approved in this area have as their primary purpose the development of the analytical powers of the student as they might be exercises in the presentation and evaluation of mathematical or other formal symbolic systems.

Textbook/Materials: *Intro Stats.* 6th edition, by Richard De Veaux, Paul Velleman, and David Bock, 2014.

Academic Honesty and Misconduct

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

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 <u>CLAS Undergraduate Programs</u> for support when the matter is not resolved at the previous level. Graduate students should contact the <u>CLAS Dean's Office</u> 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.

Grading System and the Use of +/-

Grade cutoffs will be no higher than the usual 90-80-70-60 breakdown. The course will use the +/-grading system. The A+ grade is used only in extraordinary situations for those students scoring in the top 1 percentile of the class.

- *Your final grade is based solely on your performance in this class.
- *No extra credit is offered.
- *Your final grade can not be negotiated.

Course Grades

Final course grades will be assessed based on your performance in the following activities:

- -Homework (25%)
- -Discussion (15%)
- -Exams (15%, 20%, 25%)

Homework (25% of grade): Homework will be assigned and collected on Fridays at 11:59 p.m. using ICON. *Homework should be turned in as a pdf*. Points will be deducted for homework that is not the appropriate file type.

During the semester, there will be two presentations---one on regression and one on hypothesis testing. These will be counted as a "double" homework assignment.

The lowest homework assignment will be dropped.

Discussion (15% of grade): Each discussion section will consist of open-ended problems to work through with your TA and/or classmates. It is required to work through the problems and earn completion credit for work during discussion.

The lowest discussion grade will be dropped.

Exams (15/20/25%): Three exams will be given: two midterms and a final. The dates of the exams are TBD.

Date and Time of the Final Exam

The <u>final examination date and time</u> will be announced by the Registrar generally by the fifth week of classes, and it will be announced on the course ICON site once it is known. **Do not plan your end of the semester travel plans until the final exam schedule is made public. It is your responsibility to know the date, time, and place of the final exam. According to the Registrar's final exam policy, students have a maximum of two weeks after the announced final exam schedule to request a change if an exam conflict exists or if a student has more than two exams scheduled for the same day (see the <u>policy</u> here).**

Calendar of Course Assignments and Exams

Week	Assignment	Due Date	Topic	Chapter Readings
1	HW 01	8/30/2024	Intro	1, 2, 3, 4, 10, 11
2	HW 02	9/6/2024	Regression	6, 7
3	Project 1	9/13/2024		8, 9
4	HW 03	9/20/2024	Probability	12
5	HW 04	9/27/2024	Discrete Distributions	
6	Exam 1	10/4/2024		
7	HW 05	10/11/2024	Normal Distribution	5, 13.1 & 13.2
8	HW 06	10/18/2024	Proportions	13.3 - 13.6 & 15.1 - 15.3
9	HW 07	10/25/2024	Means	14 & 15.4 - 15.6
10	Exam 2	11/1/2024		16
11	HW 08	11/8/2024	Two Sample	17
12	HW 09	11/15/2024	Paired Samples	18
13	Project 2	11/22/2024	Comparing Counts	19
		11/29/2024		
14	HW 10	12/6/2024	Regression Inference	20
15	Final Review	12/13/2024		

Attendance and Absences

<u>University regulations require that students be allowed to make up examinations</u> that have been missed due to illness, religious holy days, military service obligations (including service-related medical appointments), or other unavoidable circumstances or University-sponsored activities. Students with UI-authorized activities must discuss their absences with the instructor as soon as possible. Religious obligations must be communicated within the first three weeks of classes.

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 and more info: dos.uiowa.edu/assistance University Policies

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.

Free Speech and Expression

Absences for Religious Holy Days

Classroom Expectations

Non-discrimination

Sexual Harassment/Misconduct and Supportive Measures

Sharing of Class Recordings (if appropriate)