

Statistical Methods and Computing – STAT:2010
FALL, 2019

Lecture times: MW 10:30–11:20 AM

Lecture location: 140 Schaeffer Hall

1 General Information

Instructor:	Milan Stehlik 205 SH 319-467-1802 milan-stehlik@uiowa.edu
Office hours:	MF 2:00–3:30 PM in Schaeffer 205
TA:	Isaac Sak Lee 213 SH sak-lee@uiowa.edu
Office hours:	F 2:00–5:00 PM in Schaeffer 213
Department:	Statistics and Actuarial Science, 241 SH
DEO:	Dr. Kung-Sik Chan, 241 SH, 335-0712 kung-sik-chan@uiowa.edu
Lab:	Will replace lecture every Fri.
Course webpage:	ICON (http://icon.uiowa.edu) has course information, notes, assignments, solutions, exam preparation materials, and access to grades.
Textbook:	Moore, Notz, and Fligner, <i>The Basic Practice of Statistics</i> , 6th ed. 2013, Freeman
Recommended resources:	Delwiche and Slaughter, <i>The Little SAS Book</i> , 4th ed., 2008

2 Course description

Methods of data description and analysis using R and SAS, possibly Python: descriptive statistics, graphical presentation, estimation, hypothesis testing, sample size, power; emphasis on learning statistical methods and concepts through hands-on experience with real data. GE: Quantitative or Formal Reasoning.

3 Course goals and objectives

Through hands-on experience with real data from a wide variety of applications, students will learn basic methods required for data analysis and interpretation. The emphasis will be on formulating questions, choosing appropriate statistical techniques for a given problem, verifying whether the assumptions behind the techniques are met by the dataset, drawing appropriate conclusions from the analysis, and communicating the results. Students will

learn the basics of programming environments, a statistical software package that is widely used in business, industry, government, and research.

STAT:2010 is approved for General Education in the Quantitative or Formal Reasoning category.

4 Expectations for attendance and student effort

- Students are expected to attend all lectures and labs. Roll will be taken on approximately 5 randomly-selected dates during the semester. Please let me know if you have a family emergency or are ill and need to miss class.
- Students are expected to turn in all homework and project components by the deadlines. On average, students will need to spend about 2 hours outside of class for each one hour of class time. Some weeks will be lighter, others heavier.

5 Evaluation of students

5.1 Homework

In general, homework will be assigned each Fri. and will be due the following Fri. by electronic submission in ICON. Exceptions to this schedule will be announced in class.

Show your work when solving written homework problems. For computer problems, turn in printouts of your commands or programs and their output.

You are encouraged to study with others. However, if you do work 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.

Late homework is accepted only as required by university policy, i.e. due to “illness, mandatory religious obligations, or other unavoidable circumstances or University activities.” Documentation must be provided.

5.2 Exams

There will be three 1-hour midterm exams and one comprehensive 2-hour final. The midterms will be given in an announced location during a regular class period. Students may bring one 8-1/2 x 11 in. sheet of paper with notes to each midterm, and may bring three sheets to the final exam.

Midterm 1	Wed. 9/25
Midterm 2	Wed. 10/23
Midterm 3	Wed. 11/6
Final exam	TBA

Missed exams may be made up only with documentation of reasons required by university policy (see “Late Homework” above).

5.3 Grading

The course components will be weighted as follows:

Homework	15%
Midterms	51% (17% each)
Final	34%

6 Extra Help

The Statistics Tutorial Lab gives free tutorial assistance to students in 22S:2, 8, 25, and 39. In addition, several graduate students have volunteered to independently tutor students in various STAT courses at mutually- arranged times and fees. Please check the web site www.stat.uiowa.edu/courses/tutoring.html for tutoring details.

7 College of Liberal Arts and Sciences: Policies and Resources

The CLAS policies and procedures are stated at the following link:

<http://clas.uiowa.edu/faculty/teaching-policies-resources-syllabus-insert>

Administrative Home 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 other policies. These policies vary by college (<https://clas.uiowa.edu/students/handbook>).

Electronic Communication 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).

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 should then discuss accommodations with the course instructor (<https://sds.studentlife.uiowa.edu/>).

Nondiscrimination in the Classroom UI 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 at diversity@uiowa.edu or diversity.uiowa.edu.

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 the UI email address.

CLAS Final Examination Policies The final exam schedule for each semester 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 final exam information. No exams of any kind are allowed the week before finals. (<https://clas.uiowa.edu/faculty/teaching-policies-resources-examination-policies>.)

Making a Complaint Students with a complaint should first visit with the instructor or course supervisor and then with the departmental executive officer (DEO), also known as the Chair. Students may then bring the concern to CLAS (<https://clas.uiowa.edu/students/handbook/student-rights-responsibilities>).

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