

Statistical Methods and Computing – STAT:2010/4200  
Spring, 2018

## 1 General Information

Instructor: Dr. Aixin Tan, 259 SH, 335-0821, aixin-tan@uiowa.edu  
Instructor Office hours: MW 12:50 - 2 p.m.  
Please feel free to send me or the TA questions by e-mail (NOT by ICON messages),  
and to make appointments to see me outside of office hours.

Teaching Assistant and Lab Instructor (TA) Sheng Wang, 350 SH, sheng-wang@uiowa.edu  
TA Office hours: Th 9:45 - 11:30am and 2:00 - 3:15pm.

Regular Lectures: M, W 11:30 am -12:20 pm W151 PBB

Labs/discussions: Friday, 41 SH (NOT in the room in SH listed on your registration page)  
Each student should have registered and attend ONE of the following three sessions:  
10:30-11:20 (0A11) 11:30-12:20 (0A12) 12:30-13:20 (0A13)  
IN CASES OF OCCASIONAL CHANGES to the schedule and classroom, I will  
make an announcement in class and on the “Announcements” page in ICON the week before.

Course webpage: log into ICON at <https://icon.uiowa.edu>. Check the “Announcements” page and  
the “Modules” page regularly for updates.

Class materials: Handouts, homework assignments, links to datasets, etc.  
will be posted in ICON.

Textbook: Moore, Notz, and Fligner, *The Basic Practice of Statistics, 6th ed.*  
2013, Freeman (CD not required)

Recommended resources: Delwiche and Slaughter, *The Little SAS Book*, 2012, SAS Institute.  
(You can search for this title with infoHawk+ at [www.lib.uiowa.edu](http://www.lib.uiowa.edu).  
UI students have free online access to it.)

Department: Statistics and Actuarial Science, 241 SH  
DEO: Dr. Lang, 241 SH, 335-0712  
joseph-lang@uiowa.edu

## 2 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 SAS, a statistical software package that is widely used in business, industry, government, and research.

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

## 3 Evaluation of students

### 3.1 Homework

In general, one homework will be assigned each week. and will be due in class the following week.

**Show your work when solving written homework problems. For computer problems, turn in printouts of your commands or programs and their output. (More detailed instructions to come.)**

You are encouraged to study with others. But **the submitted work must reflect your own effort**. If you do discuss 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.”

### 3.2 Attendance

Attendance is required and roll will be taken at random dates. If you must miss class due to illness or other valid excuse (see “Late Homework” above), please send the instructor an email with explanation PRIOR to the class time.

### 3.3 Exams

There will be two 1-hour midterm exams and one comprehensive 2-hour final. Students may bring one 8-1/2 x 11 in. sheet of paper with formulas/notes to the first midterm, two sheets to the second midterm, three sheets to the final exam.

Midterm 1	week of Feb 12 or 19
Midterm 2	week of Mar 26 or Apr 2
Final exam	To be determined by the University

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

### 3.4 Grading

The course components will be weighted as follows:

Homework	13%
Attendance	2%
Midterms	50% (25% each)
Final	35%

Plus/minus grades will be used. For those who registered for STAT:2010, as a **rough** guide, **A**, **A-** = 90%–100%, **B+**, **B**, **B-** = 80%–90%, **C+**, **C**, **C-** = 70%–80%, **D+**, **D**, **D-** = 60%–70%. Grade assignment for those in STAT:4200 will be subject to tougher criteria.

**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.

**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 correspondence (Operations Manual, III.15.2. Scroll down to k.11).

**Accommodations for Disabilities** 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. See <https://sds.studentlife.uiowa.edu/> for more 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](mailto:diversity@uiowa.edu), or visit [diversity.uiowa.edu](http://diversity.uiowa.edu).

**Academic Honesty** All students taking CLAS courses 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 (CLAS Academic Policies Handbook).

**CLAS Final Examination Policies** The date and time of every final examination is announced by the Registrar generally by the fifth week of classes. 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. It is the student's responsibility to know the date, time, and place of the final exam.

**Making a Suggestion or a Complaint** Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies 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 Office of the Sexual Misconduct Response Coordinator 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 website.

## 4 Tentative course schedule

	week 1	1/15	Chapter 1, 2
	week 2	1/22	Chapter 2, 4, 5
	week 3	1/29	Chapter 3
	week 4	2/5	Chapter 5, 8
	week 5	2/12	Chapter 9
	week 6	2/19	Chapter 10, 11, midterm 1?
	week 7	2/26	Chapter 14, 15
Note this is just an approximate schedule.	week 8	3/5	Chapter 15, 16
		3/12 - 3/16	Spring break, no class
	week 9	3/19	Chapter 16, 18
	week 10	3/26	Chapter 18
	week 11	4/2	Chapter 19, 20, midterm 2?
	week 12	4/9	Chapters 20, 21
	week 13	4/16	Chapter 23, 25
	week 14	4/23	Chapter 24
	week 15	4/30	Chapter 26