Statistical Methods and Computing – STAT:2010
Spring, 2020

1 General Information

Instructor:	Kate Cowles 374 SH 335-0727 kate-cowles@uiowa.edu
Office hours:	M 12:30 - 1:20 p.m. W 10:30 - 11:20 a.m. Th 1:30 - 2:20 p.m. Please feel free to make appointments to see me outside of office hours, and to send me questions by e-mail.
TA:	Sak Lee 213 SH sak-lee@uiowa.edu Office Hour: Th 9:00 a.m. - noon
Department:	Statistics and Actuarial Science, 241 SH
DEO:	Dr. Kung-Sik Chan, 241 SH, 335-0712 kung-sik-chan@uiowa.edu
Lectures: Lab:	M, W 11:30-12:20 W151 PBB Will replace lecture every Fri. 41 SH
Web page:	`http://www.stat.uiowa.edu/~kcowles/STAT2010_2020` Handouts, homework assignments, datasets, etc. will be posted on the web page for you to download.
Textbook:	Moore, Notz, and Fligner, *The Basic Practice of Statistics, 6th ed.* 2013, Freeman
Recommended resources:	Delwiche and Slaughter, *The Little SAS Book*, 4th ed., 2008

2 Course description

Methods of data description and analysis using SAS: 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 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 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 Thurs. 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. 2/26
Midterm 2	Wed. 4/01
Midterm 3	Wed. 4/29
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`

8 Course schedule

This approximate schedule will be updated as needed during the semester.

1/20 - 1/24	Chapter 1, 2 no class Mon. 1/20 (university holiday) lab 1/24
1/27 - 1/31	Chapter 3 lab 1/31
2/03 - 2/07	Chapter 4, 5 lab 2/07
2/10 - 2/14	Chapter 5, 8 lab 2/14
2/17 - 2/21	Chapter 9 lab 2/21
2/24 - 2/28	Chapter 10-11 midterm 1 2/26 lab 2/28
3/02 - 3/06	Chapter 14, 15 lab 3/06
3/09 - 3/13	Chapter 15, 16 lab 3/13
3/16 - 3/20	Spring Break
3/23 - 3/27	Chapter 16, 18 lab 3/27
3/30 - 4/03	Chapter 18 midterm 2 04/01 lab 4/03
4/06 - 4/10	Chapter 19, 20 lab 4/10
4/13 - 4/17	Chapters 20, 21, 23 lab 4/17
4/20 - 4/24	Chapters 23, 25 lab 4/24
4/27 - 5/01	Chapter 24 midterm 3 4/29 lab 5/01
5/04 - 5/08	Review and special presentations lab 5/08
Exam wk 5/11-15	Final exam