

The University of Iowa
College of Liberal Arts and Sciences
Department of Statistics and Actuarial Science

Statistics for Business, 22S:008:AAA

Fall 2009

3:30-4:45 PM Monday & Wednesday, Macbride Auditorium

<http://www.stat.uiowa.edu/~mbognar>

▷ **General Information**

- *Instructor*: Matt Bognar, 358 SH, 335-0799, mbognar@stat.uiowa.edu
- *Office Hours*: 9:30-11:30 Monday, 11:15-12:15 Friday, and by appointment
- *TA's*: See website
- *DEO*: Luke Tierney, 241 SH, 335-0712
- *Textbook*: Moore, McCabe, Duckworth, and Alwan (2009). *The Practice of Business Statistics, 2nd edition*, Freeman.
- *ICON/Web*: This course will use ICON (<http://icon.uiowa.edu>) and our course website (<http://www.stat.uiowa.edu/~mbognar>) for announcements, homework assignments, etc.
- *Approved GE*: Quantitative or Formal Reasoning. This course is primarily for students following the business curriculum. Topics covered include descriptive statistics, probability, estimation, testing hypotheses, and regression and correlation. Students analyze data using the MINITAB computer package.

▷ **Course Objectives**

- In this course we will cover the following topics (in roughly this order):
 - * Statistical graphics, summary statistics (chapter 1)
 - * Sampling techniques, randomization, experimental design (chapter 3)
 - * Probability (chapters 4 and 5)
 - * Probability distributions (chapters 4 and 5)
 - * Normal distribution (chapter 1)
 - * Sampling distributions (chapter 4)
 - * Inference for a population mean(s) (chapters 6 and 7)
 - * Inference for a population proportion(s) (chapter 8)
 - * Inference for two-way contingency tables (chapter 9)
 - * Type I & II errors, statistical power (chapter 6.4)
 - * Correlation and regression (chapters 2 and 10)
 - * Multiple regression (chapter 11, if time)
 - * Other topics (if time)
- We will learn how to do many of the statistical analyses described in class using the statistical software package *Minitab*. *Minitab* is available in the campus computer labs. There is a free online version as well; go to <http://virtualdesktop.uiowa.edu>. Hand computation will be stressed, however.
- Supplementation to the textbook, when needed, will be provided.
- We will *not* cover all parts of each chapter listed above. Focus your readings on the material that was covered in class.

▷ **Grading**

- *Exams*: There will be 2 midterms (17.5% each) and a final exam (25%). All exams will be 2 hours in length. Exam dates:
 - * Exam 1: Thursday, October 1, 5:30-7:30 PM

- * Exam 2: Thursday, November 5, 5:30-7:30 PM
- * Final Exam: Wednesday, December 16, 9:45-11:45 AM

Students are expected to be present for the exams at the *scheduled time*. It is your responsibility to make the appropriate arrangements *beforehand*.

- *Quizzes*: (20% total) A quiz will be given in lecture each Wednesday. *Make-up quizzes will not be allowed under any circumstances*. The lowest two quiz scores will be dropped. Unannounced quizzes may be given (in lecture or discussion) at any time.
- *Homework*: (10% total) Homework will be due each Thursday in discussion. Because the TA's will *not* have enough time to grade each problem, a subset of the assigned problems will be graded. *Late homework will not be accepted under any circumstances*. The lowest two homework scores will be dropped. Homework must be stapled, defuzzed, be neatly written in *pencil*, and look professional (points will be deducted for failing to do so). Excessively sloppy homework will receive a score of 0. Print your name and TA/discussion time in the upper right corner of your homework before handing-in.
- *Mini-Quizzes*: (5% total) An unannounced mini-quiz will periodically be administered in lecture (and possibly discussion). *Make-up mini-quizzes will not be allowed under any circumstances*. The lowest mini-quiz score will be dropped.
- *Discussion*: (5% total) Your TA will evaluate you via attendance, unannounced quizzes, preparedness, participation, etc. in your discussion sections. *Make sure you are clear about your TA's policies and expectations regarding the discussion grade*.
- You are expected to attend all lectures and discussions.
- Your attendance, participation, preparedness, work ethic, etc. may affect your grade.
- This course uses the +/– grading system (i.e. grades such as A–, B+, and B will be assigned).
- Students will receive grades according to the usual 90, 80, 70, 60 breakdown. This class is not “curved”.

▷ **Extra Help**

- *Statistics Tutorial Lab*: There is a *free* statistics tutorial lab in room 202 Communications Center. During available times, a knowledgeable person will be present to assist students. Hours for the lab can be found at

<http://www.stat.uiowa.edu/courses/tutorial-lab.html>

- A list of *non-free* tutors can be found at <http://www.stat.uiowa.edu/courses/tutors.html>

▷ **Notes**

- Please turn off (or silence) cell phones and pagers during lecture and discussion.
- Success in this class requires a large time commitment. A *minimum* of 10 to 15 hours per week is expected. Review/study numerous times throughout the week.
- The material in this course appears *deceptively* easy. Even though the material may (at times) look easy in lecture (and discussion), you will find that doing problems on your own is much, much harder. You can not passively learn Statistics; you need to invest the required time to form a deep, thorough understanding. Don't memorize! *Frequently quizzing/testing yourself is the best, most efficient way to learn the material*.
- Please attend lectures and discussions in their entirety.
- If you are absent from discussion or lecture (without giving prior notice to your TA), we can not provide handouts/notes.
- You are expected to be, at all times, respectful of your TA and fellow students.
- I reserve the right to give bonus points at any time. The bonus points may be applied to any part of your grade.

▷ *The College of Liberal Arts and Sciences Policy and Procedures*

- *Administrative Home of the Course:* 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 Student Academic Handbook

<http://www.clas.uiowa.edu/students/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 correspondences. (Operations Manual, III.15.2. Scroll down to k.11.)
- *Academic Fraud:* Plagiarism and any other activities when students present work that is not their own are academic fraud. Academic fraud is a serious matter and is reported to the departmental DEO and to the Associate Dean for Undergraduate Programs and Curriculum. Instructors and DEOs decide on appropriate consequences at the departmental level while the Associate Dean enforces additional consequences at the collegiate level. See the CLAS Academic Fraud section of the Student Academic Handbook.
- *CLAS Final Examination Policies:* Final exams may be offered only during finals week. No exams of any kind are allowed during the last week of classes. Students should not ask their instructor to reschedule a final exam since the College does not permit rescheduling of a final exam once the semester has begun. Questions should be addressed to the Associate Dean for Undergraduate Programs and Curriculum.
- *Making a Suggestion or a Complaint:* Students with a suggestion or complaint should first visit the instructor, then the course supervisor, and then the departmental DEO. Complaints must be made within six months of the incident. See the CLAS Student Academic Handbook.
- *Accommodations for Disabilities:* A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See <http://www.uiowa.edu/~sds> for more information.
- *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 UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.
<http://www.uiowa.edu/~eod/policies/sexual-harassment-guide/index.html>
- *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 web site, <http://www.uiowa.edu/~pubsfty>