

22S:130:001
Introduction to Mathematical Statistics I
Fall 2009

Prerequisite: two semesters of calculus

Instructor:

J. Broffitt, 231 SH, 335-0820, james-broffitt@uiowa.edu

Office Hours:

2:30 - 3:20 MW & 10:00 - 11:00 TR, or by appointment.

Department:

Statistics & Actuarial Science, 241 SH, 335-0712.

Department Chair - L. Tierney, luke-tierney@uiowa.edu, 5-0712.

Email:

Any emails relating to this course will be sent to you via your email address registered with the University (no exceptions). Check your email at least once per day.

Classes:

1:30 MWF in W307 PBB

Text:

Probability and Statistical Inference, 8th Ed. by Hogg and Tanis

ICON:

This course will make use of ICON (Iowa Courses ON line). Grades will be posted on ICON as well as homework assignments and other information that you may wish to access and print. The web address for ICON is <http://icon.uiowa.edu/>. You will need to log in using your Hawk ID and password.

Tutors:

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

Objectives:

This course is intended to provide a good understanding of introductory probability and mathematical statistics. This is the first semester of a two semester sequence. The first semester concentrates on probability and the second on the mathematics of statistical inference. The sequence 22S:130-131 is required of undergraduate statistics majors and undergraduate actuarial majors. The prerequisite is one year of calculus. This course will also help to prepare students for the first professional actuarial exam. We will cover most of chapters 1 through 5.

Attendance:

Attendance is mandatory. I expect students to be on time and attend all classes. Being sick is a legitimate reason to miss class, but just feeling a little under the weather is not. **Excessive absences may result in a lowering of your grade or a failing grade.**

Homework:

Unless otherwise stated, homework assignments will be collected on Fridays and returned on Mondays. Submit homework on 8.5x11 paper. **If there is more than one page, staple them together.** Homework is due at the beginning of the class period. I do not mind if you work with others on homework problems, and I encourage you to come to me for hints if you are stuck. However, you should first attempt to do the problems on your own, and you are to write the solutions on your own rather than copying the work of others. Do not merely write down answers, but clearly show how you got your results. Homework may be submitted one class period late, but there will be a 25% penalty. Late homework creates additional burdens on the grader. The penalty is to encourage you to be on time with your homework, and thus make life a bit easier for the grader.

Friendly Advice:

Main rule -- do not fall behind! The material is cumulative. Most of you will need a minimum of two to three hours of study after each class (not including class time) to successfully learn the course material. Some of you will need more. If you do not put in the time, you will not learn. Your goal should be to understand rather than to just memorize facts and formulas.

Come to office hours to get your problems sorted out promptly. Study the text carefully and keep up with the lectures. Don't read it like a novel. Do the problems and if you get stuck, look for similar worked examples. Work problems by yourself or in small groups -- both assigned homework problems and others from the text. Working exercises is *the* major way to assess your understanding and to solidify concepts. You cannot learn how to solve problems by merely watching your teacher do them -- you must solve problems on your own. When you do not understand, ask questions. Be a participant and not just a spectator.

Exams:

Exams will be closed book. Do not wear caps or hats during the exams. There will be two exams plus a final. Exam dates and locations are as follows:

Exam 1:	Wednesday, September 30	1:30 to 2:20 PM	101 BCSB
Exam 2:	Wednesday, November 4	1:30 to 2:20 PM	101 BCSB
Final Exam:	Tuesday, December 15	9:45 to 11:45 AM	Room to be announced

Calculators:

No programmable calculators are allowed on the exams. Actuarial science majors will be served best by buying a financial calculator and/or a scientific calculator that is allowed on the professional exams sponsored by the Casualty Actuarial Society and the Society of Actuaries. The financial calculators are Texas Instruments BA II Plus or the BA II Plus Professional. These calculators are

the only ones allowed on CAS/SOA exams that do interest calculations. The II Plus costs about \$30, and the II Plus Professional costs about \$50. The scientific calculators are TI-30Xa (about \$10) and the TI-30X II (S - solar, B - battery) (about \$13). **If you want to use a calculator other than one of these, get it approved by me well before the first exam.**

Grades:

Grades will be based on the percent of points earned on exams and homework. In determining your grade, each exam will count 22%, the final will count 44%, and homework will count 12%. If E_i is the percent of points earned on exam i , F is the percent of points earned on the final, and H is the percent of points earned on homework, your grade will be based on the following score:

$$0.22 [E_1 + E_2] + 0.44F + 0.12H.$$

Your grade for this course will be assigned according to the following **approximate** scale:

Undergraduate Students	Graduate Students	Grade
90 to 100	90 to 100	A
75 to 89	80 to 89	B
60 to 74	70 to 79	C
50 to 59	60 to 69	D
0 to 49	0 to 59	F

This is not an absolute scale. The cutoff points may vary depending on the difficulty of the exams. Also, borderline cases may receive a + or -, **and grades may be lowered due to attendance.**

College of Liberal Arts and Sciences: Policies and Procedures

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 [Student Academic 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.)

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 www.uiowa.edu/~sds/ for more information.

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](#).

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.

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](#).

*These CLAS policy and procedural statements have been summarized from the web pages of the [College of Liberal Arts and Sciences](#) and The University of Iowa [Operations Manual](#).