

**STAT:1020/PSQF:1020 (22S:025/07P:025)**  
**Elementary Statistics and Inference**  
**Spring 2016 - evening class**

**Instructor:** M. Russo, 269 SH, 353-2295, mary-russo@uiowa.edu

**Class Time/Location:** **Eve Class (Sec 0100)** Wed., 6:30PM - 9:30PM, 14 SH

**Office Hours:** Tues. 10:30 AM - 12:30 PM, Wed. 2:30 PM – 3:30 PM, and by appointment. Occasionally, hours may be rescheduled to accommodate students who wish to attend -- announcements of changes will be made in class and posted on the instructor's door (269 SH). Students seeking office-hour help are expected to have excellent attendance in the lectures and discussions.

**Communication:** Students should use only their University of Iowa email address, when corresponding with me via email.

**Approved GE:** Quantitative or Formal Reasoning. Courses approved in this area have as their primary purpose the development of the analytical powers of the student as they might be exercised in the presentation and evaluation of mathematical or other formal symbolic systems.

**Course Objectives:** This course takes a conceptual approach to the major ideas of probability & statistics. Topics include descriptive statistics, the normal distribution, correlation & regression, elements of probability, chance error, expectation, standard error, sampling, logic of statistical inference, confidence intervals & hypothesis tests.

**Prerequisite:** MATH:0100 or MATH:1005 or ALEKS [30]  
Students should be comfortable with math at the level of elementary algebra (e.g., equation of a straight line, plotting points, taking powers & roots, percentages).

**Text:** Statistics, 4th edition by Freedman, Pisani, and Purves; W.W. Norton & Co., **4th ed.** (ISBN: 0-393-92972-8; ISBN: 13-978-0-393-92972-0). This is an excellent book with many good examples & exercises. Coverage: chapters 3-5, 6, 7, 8-10, 12-21, 23-24, & 26-27 (22 chapters). The book is available at the University of Iowa bookstore.

**Additional course materials** will be posted in ICON content. Students are required to print out these materials & bring them to class and discussions, as needed.

**The Lectures:** Topics from the text will be covered. Some additional material will be covered. Notation, theory, problems, and procedures will be explained in detail. Notes should be taken. Bring your text, printed course materials from ICON, and a calculator. Note that restrictions concerning calculators will be announced.

**Attendance** is required. A record of attendance will be made. Illness/injury is a legitimate reason to miss class; feeling a little under the weather is not. Note that **a missed class is equivalent to a missed week** and absences usually lead to lower scores on quizzes and exams.

**The classroom environment:** Students have the right to a classroom environment that encourages learning. **Arriving late or leaving early or conversing with**

**fellow students during the lecture is discourteous and distracting to the instructor and to fellow students.** The learning environment is diminished when students engage in inappropriate classroom behavior such as reading newspapers or other non-class material, working on homework, using a cell phone, and using personal computers for non-class purposes such as web-surfing and facebook. More information concerning student rights and responsibilities in the classroom can be found at <http://clas.uiowa.edu/students/handbook>

**Homework** assignments will consist of textbook and supplemental problems. The assignments and due dates will be posted on ICON. For some assignments, students will work in groups. Instruction for group work will be given in class. The hand-in assignments will be collected **at the beginning** of class, on the due date.

For each homework problem, show the necessary work and clearly indicate your answer. Include enough detail to demonstrate your method for finding the answer. Sketches and graphs are helpful. Please use a dark pencil (#2) or a black or blue pen.

The assigned textbook problems **MUST BE started** directly on the assignment page printed from ICON; if additional pages are needed, use 8.5 x 11 inch paper, not torn from a spiral notebook. The supplemental problems **MUST BE completed** directly on the pages printed from ICON.

Chapters must be kept separate from each other (do not start Chapter 4 on the back of Chapter 3, etc.) AND separate from the supplemental problems. Some assignments may include more than one "homework supplement." Supplements must be kept separate from each other (do not print Supplement 6 on the back of Supplement 5, etc.)

Each assignment **MUST** include your **name as it appears on ICON**, and the date, printed in **INK**, in the top right hand corner. In addition, you may include your preferred name or nickname in parentheses. Please **DO NOT** write your student ID number on your homework papers.

**Working Together on Homework:** Working on homework problems with fellow students can be an enjoyable way to learn and stay involved with the class. However, attempting the problems on your own before working with others is most beneficial. Please note that each student **MUST** write up the solutions to any individual (non-group) homework assignment on his/her own, rather than copying the work of another student.

**Late Homework:** Homework is officially due at the beginning of class on the due date. Homework submitted after that time, but prior to 3 PM of the Friday following the due date, is subject to a 50% penalty. Homework submitted after that time, but prior to 3 PM of the Monday following the due date, is subject to a 75% penalty. All other submissions are subject to a 100% penalty.

If you are unable to make it to class on a homework due date, you should arrange to have your homework delivered on time (that is, by the beginning of the class on the due date). Please note that homework will **NOT** be accepted electronically.

**Quizzes** (approximately 5), lasting about 15 minutes each, will be given during the class. Quiz dates and topics will be announced in class, the week before.

Quizzes are "closed book" and consist of several "show your work" type problems. For each student, the lowest quiz score will be dropped.

**Exams** will be "closed book" and multiple choice (or a combination of "show your work" and multiple choice.) For some of the exams, a small note sheet may be used. Details concerning note sheets and other exam policies, will be announced in class, one week before an exam.

The exams will cover material from the lectures, textbook, and handouts.

**Exam #1**      Wednesday, February 24, (during class)  
**Exam #2**      Wednesday, April 6, (during class)

**Cumulative Final Exam** DATE/TIME/ROOM(S) to be announced

The final exam will be held during finals week, as scheduled by the university. ISIS and the Registrar's webpage have links to the final exam schedule:

<http://www.registrar.uiowa.edu/default.aspx>

Any changes in the exam schedule will be announced in class and on ICON.

**Exam Protocol:** About one week before an upcoming exam, a memo containing information about the exam will be posted on ICON or given out in class. TA review sessions will be held. Attendance at the review sessions is optional.

Single-purpose calculators only (no smart devices) are to be used during quizzes and exams. Restrictions on calculators will be announced. Sharing calculators is NOT allowed. Students should not talk to other students during the exams. If you leave an exam early, you risk missing a clarification, hint, or correction.

When you leave an exam, your question paper, math tables, scrap paper (which will be given with the exam), note sheet (if allowed), and bubble sheet (if given with the exam), MUST be handed directly to the instructor or proctor. Then, your University of Iowa ID card must be presented. You must wait for an "OK" before leaving.

Cheating in all forms is taken very seriously. Cheating could result in the assignment of an "F" grade and disciplinary action by the college and/or university.

**Absences and Make-ups:** If you know that you will miss a quiz or exam, or if something unexpected comes up (emergency, illness, etc.) please let me (instructor) know as soon as possible prior to the exam, and we will discuss your situation and possibly schedule a make-up. Please be prepared to show documentation of your situation. Not all situations are university approved. Additional information concerning the policy on missed exams and class work can be found at <http://clas.uiowa.edu/students/handbook>

**Grading:** The course grade will be calculated using the following weights:  
attendance = 2%, HW = 8%, quizzes = 10%, exam 1 = 25%, exam 2 = 25%,  
final = 30%

The final course percent is a weighted sum of attendance, HW, quiz, midterm, and final exam grades:

**Course %** = (attendance fraction)(2%) + (HW fraction)(8%)+(quiz frac)(10%)+(E1 frac)(25%)+(E2 frac)(25%)+(final frac)(30%)

As a rough guide, 90-100%=A- to A+, 80-90%=B- to B+, 65-80%=C- to C+, 50-65% = D- to D+

Throughout the semester, grades will be recorded on ICON. If you feel that a grade you have received on a paper or on ICON is incorrect, and you wish to have your paper reviewed, you must contact the instructor and resubmit the paper within 8 days of the first day that the relevant paper was made available in class or the relevant grade was posted on ICON.

**Help** is available during instructor office hours and TA review sessions. The Statistics Tutorial Lab is open to all students enrolled in the class; the Lab will post open hours for drop-in sessions. Students sometimes hire independent tutors. A list of tutoring resources is kept on the Statistics Dept. homepage:

<http://www.stat.uiowa.edu/resources/tutoring>

Note that for qualified students, tutoring may be available through The Center for Diversity and Enrichment: <http://diversity.uiowa.edu/cde>

**Information for students with disabilities:** I would like to hear from anyone who has a disability which may require seating modifications or testing accommodations or accommodations of other class requirements, so that appropriate arrangements may be made. Please contact me during my office hours or by email.

**Departmental Home:** The Department of Statistics and Actuarial Science is the departmental home of this course. The department office is in 241 SH, phone 335-0712, web address: <http://www.stat.uiowa.edu/> The Department Executive Officer (DEO) is Professor Lang, 241 SH, phone 335-0712, [joseph-lang@uiowa.edu](mailto:joseph-lang@uiowa.edu)

### **Teaching Policies & Resources - College of Liberal Arts:**

**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 at <http://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, 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 <http://sds.studentlife.uiowa.edu/> for more information.

**Academic Honesty:** All CLAS students or students taking classes offered by CLAS 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 final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. 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. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar's web site and will be shared with instructors and students. It is the student's responsibility to know the date, time, and place of a 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 UI [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 [Department of Public Safety website](#).