Course Description

This seminar emphasizes using statistics effectively. There is a popular view of “lies, damned lies, and statistics,” but real statisticians try hard to find the truth and report it as clearly as possible. In doing so, one must be aware of how one can be misled by faulty data-collection and summarization, but the goal is to avoid these pitfalls and thus to get it right.

The goal of the course is to acquaint you with a broad spectrum of situations where statistics and statistical thinking have helped people understand a situation or solve important problems. In addition, it is hoped you will be able to anticipate how statistical thinking can help in other situations beyond the ones we read about.

The required text contains interesting case studies that are presented in pairs. (The two in each pair represent very different applications of similar ideas.) Additional materials will come from articles, blogs, examples from Lenth’s own research, and your own data-collection efforts.

Course work

Class time will be devoted mostly to discussions of reading assignments, as well as news articles, websites, overheard conversations, etc. that students will gather. Outside-of-class work will involve finding and recording such data-laden gems, and writing about such materials.

There will be an assignment every week—to observe or do something, to locate and read a particular article or book, etc.—and to prepare to discuss that experience in the next week’s class. Often, you will be asked to write about it. There is a lot of latitude in what format you choose to write in—you may prepare scholarly papers, cartoons, children’s stories, dramatic presentations, or what have you.

Another goal of first-year seminars is more general—get acquainted with University life and learn to survive (and thrive) in this setting. As is seen fit and agreed on, we can also discuss such matters during classes.

Grading

Your grade will be based on written work and participation. The latter includes attendance (roll will be taken at the beginning of each class) and active engagement in class discussions. Since this course is about numbers and data, it seems like we should as a class try to develop what are good ways of scoring these things. Thus, some of the class discussion will involve developing rubrics for determining participation and writing grades.

There will be no exams.

Last revised: August 19, 2011
College Policies

The following policy and procedural statements have been summarized from the web pages of the College of Liberal Arts and Sciences, [http://www.clas.uiowa.edu/](http://www.clas.uiowa.edu/), and The University of Iowa Operations Manual, [http://www.uiowa.edu/~our/opmanual/index.html](http://www.uiowa.edu/~our/opmanual/index.html).

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, [http://www.clas.uiowa.edu/students/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: [http://www.uiowa.edu/~our/opmanual/iii/15.htm#152](http://www.uiowa.edu/~our/opmanual/iii/15.htm#152). 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 [http://www.uiowa.edu/~sds/](http://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, [http://clas.uiowa.edu/students/handbook/academic-fraud-honor-code](http://clas.uiowa.edu/students/handbook/academic-fraud-honor-code).

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, [http://clas.uiowa.edu/students/handbook/student-rights-responsibilities](http://clas.uiowa.edu/students/handbook/student-rights-responsibilities).

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, [http://www.uiowa.edu/~eod/policies/sexual-harassment-guide/index.html](http://www.uiowa.edu/~eod/policies/sexual-harassment-guide/index.html) 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, [http://police.uiowa.edu/stay-informed/emergency-communication/](http://police.uiowa.edu/stay-informed/emergency-communication/).