22S:173  Statistical Consulting

Spring semester, 2008

Time & Place
Monday, Wednesday, Friday 1:30 pm–2:20 pm, 51 Schaeffer Hall

Prerequisites
22S:152 and 22S:158; or 22S:164 and 22S:165

Text materials
No specific textbook; you will need to do some library and web research.

Class Web page
On ICON <http://icon.uiowa.edu/> (log on with your HawkID)

Instructor
Russell Lenth — 271 Schaeffer Hall — 335-0814 — russell-lenth@stat.uiowa.edu

Office Hours
Monday and Wednesday 10:30–11:30 am, Thursday 2:00–3:00 pm; and by appointment

Statistics office
DEO: Professor Luke Tierney — 241 Schaeffer Hall — 335-0712

Course Goals
This is a capstone course in the BS and MS statistics programs. The primary goal is for students to gain experience in applying statistical methods to ongoing research, in consultation with clients in other disciplines. You can expect to draw heavily on all of your statistical knowledge (and non-statistical knowledge as well), and to make use of library and web resources to expand your knowledge where needed. Additional goals include communicating statistical ideas orally and in writing, and gaining knowledge of ethical practices, and acquiring certification to participate in human-subjects-related research.

Course work
There will be a few specific assignments from time to time, especially near the beginning of the course; for example, human-subjects certification. We will also view a few videos in class on consulting skills and interacting with clients.

However, your primary work will be very individualized and service-learning oriented—that is, consulting projects with clients around the University. You will work in pairs or small groups on these projects; I will assign students to projects/clients, but I will take your expressed interests into account. I will attend some client meetings (but by no means all of them).

Most class meetings will begin with a check-in, where members of each project team describe the current status of their projects. When the check-in is complete, we will usually spend the remaining time discussing certain projects in depth. The number of projects completed will depend on their complexity.

As projects are completed, the project team and the client will present in class—usually on a Friday; and there will be a period of class discussion. Where a Friday presentation is impossible, or when it is deemed desirable, we may have an evening presentation instead, to which all Statistics students and faculty will be invited. The details of when these will be will be worked-out in class; but tentatively, try to keep Monday evenings open for an occasional MESS (Monday Evening Statistics Symposium). Attendance at project presentations is required, whether or not you are involved in the project.

Grading
Graduate students will be graded S/U, but rules require undergraduates to be graded on the traditional A–F scale. Every student must show evidence of significant activity related to this course each week during the semester. Most work will be submitted via the ICON site for the course; as such, you will essentially build an electronic portfolio of your coursework. Even though most project work is with one or more other students, each student must individually report her/his work, and these reports must not be duplicated from other project team members’ reports.

Each student must submit an activity report via ICON approximately every two weeks. Additional reports will be requested as needed (for example, project reports or interim reports). All reports will be evaluated and scored on a scale of 0 to 4.3. In order to earn an S, graduate students must average 3.3 or higher (with all reports receiving equal weight unless announced otherwise), and have no more than two scores less than 2.5. Undergraduates’ course grades will simply be the average of all scores, rounded to the nearest \( \frac{1}{3} \) and interpreted as a letter grade; for example, a course average of 3.59 rounds to 3\( \frac{2}{3} \), and this is an A− on the GPA scale.

In some cases when a score is less than 3.0, there will be an opportunity to improve it by re-doing the work and being re-scored. However, if you receive a low score on a bi-weekly report because you really don’t have much

Last revised: January 8, 2008
to report for that period, then that cannot be remedied because you cannot re-live that two-week period. I also absolutely require you to not leave any projects hanging at the end of the semester. (Even if the project isn’t complete, your client deserves some kind of preliminary report and guidance for what to do next.)

Reviews of your work will also be sought from your consulting clients and team members. If these reviews are unsatisfactory, that is a serious situation, and you will be required to respond to such a review in a constructive way as determined by conferring with me.

Rules and regulations
The following statements of policy are required by the University. Most of them use standard language from the College of Liberal Arts and Sciences; however, some are extended or clarified according to the different character of this course.

Missed Exam Policy, Absences
Note: I do not plan exams; however, this University policy is required to be on the syllabus, and it will apply in case something comes up where there is an absence from required coursework.
University policy requires that students be permitted to make up examinations missed because of illness, mandatory religious obligations, certain University activities, or unavoidable circumstances. Excused absence forms are required and are available on the Registrar web site.
www.registrar.uiowa.edu/forms/absence.pdf.

Academic fraud
Plagiarism and any other activities that result in a student presenting work that is not his or her own are academic fraud. Academic fraud is reported to the departmental DEO and then to the Associate Dean for Academic Programs and Services in the College of Liberal Arts and Sciences. www.clas.uiowa.edu/students/academic_handbook/ix.shtml

Making a suggestion or a complaint
Students have the right to make suggestions or complaints and should first visit with the instructor, then with the course supervisor if appropriate, and next with the departmental DEO. All complaints must be made within six months of the incident. www.clas.uiowa.edu/students/academic_handbook/ix.shtml#5

Accommodations for disabilities
A student seeking academic accommodations first must register with Student Disability Services and then meet with a SDS counselor who determines eligibility for services. A student approved for accommodations should meet privately with the course instructor to arrange particular accommodations. www.uiowa.edu/~sds/

Understanding sexual harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit www.sexualharassment.uiowa.edu/ for definitions, assistance, and the full policy.

Administrative home of the course
The administrative home of this course is the College of Liberal Arts and Sciences, which governs academic matters relating to the course such as the add/drop deadlines, the second-grade-only option, issues concerning academic fraud or academic probation, and how credits are applied for various CLAS requirements. Please keep in mind that different colleges might have different policies. If you have questions about these or other CLAS policies, visit your academic advisor or 120 Schaeffer Hall and speak with the staff. The CLAS Academic Handbook is another useful source of information on CLAS academic policy: www.clas.uiowa.edu/students/academic_handbook/index.shtml

Reacting Safely to Severe Weather
The University of Iowa Operations Manual section 16.14 outlines appropriate responses to a tornado (i) or to a similar crisis. If a tornado or other severe weather is indicated by the UI outdoor warning system, members of the class should seek shelter in rooms and corridors in the innermost part of a building at the lowest level, staying clear of windows, corridors with windows, or large free-standing expanses such as auditoriums and cafeterias. The class will resume, if possible, after the UI outdoor warning system announces that the severe weather threat has ended.

Student Classroom Behavior and Dress
These regulations and guidelines apply also to meetings with consulting clients.) The ability to learn is lessened when students engage in inappropriate classroom behavior, distracting others; such behaviors are a violation of the Code of Student Life. When disruptive activity occurs, a University instructor has the authority to determine classroom seating patterns and to request that a student exit the classroom, laboratory, or other area used for instruction immediately for the remainder of the period. One-day suspensions are reported to appropriate departmental, collegiate, and Student Services personnel (Office of the Vice President for Student Services and Dean of Students). I also request that students dress modestly for all class meetings and client meetings.

Final Examinations
(This required syllabus element does not appear to apply to this course.) An undergraduate student who has two final examinations scheduled for the same period or more than three examinations scheduled for the same day may file a request for a change of schedule before the published deadline at the Registrars Service Center, 17 Calvin Hall, 8-4 M-F, (384-4300).