STATISTICS 368 - INTRODUCTION TO DESIGN AND ANALYSIS OF EXPERIMENTS

Course Information

Instructor: Professor Doug Wiens
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Lectures: TBA
Office hours: whenever I’m in my office, or by appointment

Required text


Assessment

Assignments: 40% (Four, equally weighted)
Mid term exam: 15% (Exams are closed book, no notes)
Project 20%
Final exam: 25% (Three hours)
(Deferred final exams TBA)

Implementing the grading system

At the end of term I will have a record of each student’s raw grades for all assignments, projects and exams. I will then compute a term results summary based on these raw grades, and rank everyone in order of merit. After deciding whether the class as a whole is average, above average or below average, I shall determine what percentage of the class should fall into each of the possible grades, and assign the grades accordingly. These grades will reflect my judgements, which will be based on my assessments of both absolute achievement and relative performance in the class.

There is no pre-determined algorithm for converting raw scores to grades. However, active participation in classroom discussions, including asking and answering questions, is expected of all students. The extent to which this has been achieved will be considered when scores are converted to grades.

There is another benefit to class participation, beyond its intrinsic value. I am regularly asked to write letters on behalf of students who are applying for awards, or for admission to further study. If I have had no interaction with you, I can report only your grade, and that beyond that I know nothing about you. Such a letter will surely not be very helpful.

Course web site

Lecture notes, assignments and other materials are posted on the course web site. Go to www.stat.ualberta.ca and follow the links.
Computing

When computer output is discussed in class and on exams it will be obtained from the R package. This package will be available for use in (at least) CAB 341 and CAB 345. STAT 368 students will have priority in CAB 345 Wednesday 8:00 - 10:00. You may use any other package (Minitab, SAS, Splus, SPSS) on assignments, if you prefer. **WARNING**: If you do use another package, you will be responsible for ensuring that these packages compute the same things in the same way as R. If you get different numbers in your output from a different package, it will be very difficult for the grader to give partial credit.

The R package is freeware - you can download it from the web and use it at home, for instance. See the course web site for more details.

Projects

You will form groups of three, carry out an experiment and then submit a (typed) report describing the purpose of the experiment, the design used, the analysis of the experimental results, and the conclusions. Try to do this in no more than twenty pages, including computer output. See the course website for examples. Let me know the composition of your group before Reading Week. I will assign otherwise unassigned people to groups during Reading Week.

Each student in a group is expected to make a full intellectual contribution to the project. Failure to do so can result in offenders being reassigned to groups of size one.

Students registered in STAT 501: Directed Study I will give oral presentations of their projects. A period of time after the end of classes will be arranged for this. The presentation will count for 5 of the 20 percent allotted for the project mark.

Feel free to discuss your project plans with me.
General comments

- Rewrite your notes as soon as possible after each lecture. Writing up material in one’s own words is the best way to see if the material has been understood.

- If you find that you don’t understand what has gone on in class, see me right away. Don’t start drifting from one lecture to another, understanding less each time.

- On assignments: Don’t hand in your rough work! Do the assignment and then rewrite it at least once - neatly, with an adequate amount of clear explanation. The rewriting stage is the most important one for finding errors in one’s work, and for deepening one’s understanding of it. Assignments are graded not only for technical correctness, but for elegance of presentation as well.

- The assignments will be marked by a graduate student who may not be as familiar as you with exactly what has gone on in class. Thus, you must be careful to include a sufficient amount of explanation about your work, so that the marker does not have to guess what you mean. The marker will want to see that you understand what you are writing, not merely that you arrive at the correct answer.

- On assigned questions that require computer output, include the output in the text of your answer at the appropriate spots - don’t put it all in a bunch at the end.

- YOU ARE EXPECTED TO WRITE UP YOUR OWN WORK IN YOUR OWN WORDS, using full sentences and proper English grammar. Copying the ideas or words of another is plagiarism, and is a serious offence. More generally:

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.ualberta.ca/secretariat/appeals.htm) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

*Students who require accommodations in this course due to a disability affecting mobility, vision, hearing, learning, or mental or physical health are advised to discuss their needs with Specialized Support and Disability Services, 2-800 Students’ Union Building, 492-3381 (phone) or 492-7269 (TTY).*

- Policy about course outlines can be found in Section 23.4(2) of the University Calendar.
NAME:

E-MAIL ADDRESS:  Send me an e-mail:  doug.wiens@ualberta.ca

DEGREE PROGRAM:

Please list the STAT and MATH courses you have previously taken. Include the names or topics of the courses, if they were not taken here.

Please list the STAT and MATH courses you are taking this year.

Why are you taking this course?