STAT 261: Statistics I

Winter 2007

Lectures T 11:30–12:30, W 1:30–2:30, F 12:30–1:30 in Jeffery 225.

Tutorial Th 9:30–10:30 in Jeffery 225. The first tutorial will be January 11. The tutorials will be focused on discussing problems, and will include as well additional examples of topics presented in the lectures.

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Assistant Jaerin Cho (jrincho@mast.queensu.ca).

Office Hour Wednesday 2:30–3:30. If you want to meet with the professor at another time, contact him in class or by email.

Text *Probability and Statistics: The Science of Uncertainty* by Michael J. Evans and Jeffery S. Rosenthal. The reading is integral to the course, and you will be responsible for knowing that material. Lectures will be devoted to highlighting the main points and expanding upon the material in the text, not to recapitulating it.

Groups You will be allocated to groups of about four students each. You are asked to sit with your group in class. These groups will form the basis of class discussions and problem solving.

Quizzes There will be 12 in-class quizzes, at the beginning of class, on days to be randomly chosen (not in the first week). These will be very brief, and will have just one or two questions, intended to be straightforward for anyone who has done the reading. The top 8 scores will form your quiz grade. The four dropped scores are intended to account for exams missed for any reason, whether late arrival or brief illness.

The first "quiz" will be a 20-minute assessment test, given in the first tutorial hour on Jan. 11. This is intended only to provide information about what students know. You will not be graded on your answers, but only on having been present and sat for the test.

Course web site Go to `http://www.mast.queensu.ca/~steinsaltz` and click on "STAT 261".

Homework There will be 12 homework assignments. These will be posted to the course web site by noon on Thursday each week, except the first week of class. You should turn in your homework in class on Friday the following week. Discussing homeworks would be a very good use of office hours. The lowest homework score will not be counted in your grade. There will be no acceptance of late homeworks, except in case of a prolonged serious illness or family crisis.

You are encouraged to discuss the homework with other students, but everyone must write it up individually.

The first assignment is a group assignment, due (exceptionally) on Tuesday, Jan. 16: Find 200 numbers. These may be drawn from any source, but they should somehow be "real data." Some good ideas: All the numbers in a newspaper or magazine; the lengths of the world's longest rivers, in kilometres; street numbers of the addresses of your friends and acquaintances; the average lifespans of different insects, in days. Email the list of numbers (as a text file, with numbers separated by commas) to steinsaltz@mast.queensu.ca. (You may need to draw from two or more sources to get the full complement of 200.) Compute mean, median, and standard deviation of your data. Draw a histogram of the numbers, and of their first digits. If you have several sources, draw histograms of the sources individually, and for the combined data set.

Cancelled class There will be no class on Friday, Jan. 12. This would be a good time for groups to meet and work on their homework.

Poster Session Each group is required to make up a conference-style poster, to be presented at a poster session tentatively scheduled for the evening of Thursday, March 29. Groups will pick topics in the third week of the term, and will be required to submit an outline of their posters by Feb. 16. The outline will count for 20% of the poster grade.

Exams There will be a midterm and a final exam in this course. The midterm is provisionally scheduled for 7–9 pm on Thursday, March 1.

Grading Your grade in the course will be based 8% on your quiz score, 10% on your homework, 25% on your midterm exam, 20% on your poster grade, and 37% on your final exam grade. If the final exam grade is higher than the midterm grade, then the final exam grade will be substituted for the midterm.

There will be no makeup exams. If you miss the midterm for any reason, the final grade will be based only on homework and final exam.

Syllabus Here is a list of readings. The date given is the date by which the reading is expected to have been completed. Further syllabus information is available on the course web site, which will be updated throughout the semester.

Week	Tuesday	Wednesday	Friday
1/16	pp. 239–62	NA	266–76
1/23	189–209	231–3	213–29
1/30	281–300	302–7	307–20
2/6	320–5,329–38	NA	351–9
2/13	361–79, 403–4	383–8	397–400
2/27	405–26,444–5	447–8	426–7
3/6	430–41	449–53	454–60
3/13	460–5	465–8	471–8
3/20	478–92	497–502	505–11
3/27	511–21	521–4	525–37
4/3	543–59	559–61	568–71