STATISTICS 231: An Introduction to Empirical Problem Solving – Winter Term, 2005

Purpose: To introduce and to develop empirical problem solving methods.

Format: Each lecture section involves four contact hours per week, in two 2-hour time slots; five of these slots will be laboratories. You need to select two laboratory partners before Laboratory 1 (in week 3 of term); these people will be your partners for all five laboratories.

A useful way to organize a laboratory group of three people is to think of one person as the *manager* of the other two people.

The laboratories are long and start on time, so you need to come prepared; if you arrive late, you may not be permitted to do the laboratory.

Instructors:

01:	W. H. Cherry	MC 6153	ext. 5507	class is at 12.30 - 2.20 in MC 2035
02:	P. K. Marriott	MC 6096	ext. 5545	class is at 2.30 - 4.20 in MC 2035.
03:	P. Balka	MC 6139	ext. 5546	class is at 10.30-12.20 in MC 2035
04:	W. H. Cherry	MC 6153	ext. 5507	class is at 8.30-10.20 in MC 2035
05:	S. H. Steiner	MC 6020	ext. 6506	class is at 2.30 - 4.20 in MC 4020

Assessment:

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	Assignments (5 × 2)	10		Assignments (5 × 1)	5
	Laboratory reports (5 × 2)	10		Laboratory reports (5 × 1)	5
	Quizzes (10, 10)	20		Quizzes (5, 5)	10
	Final examination	60		Final examination	80;

A passing grade on the final examination is normally needed to pass the course.

Office Hours

(W. H. C.):	Monday, Tuesday and Wednesday, 3 to 4 pm.
(P. K. M.):	Tuesday, Thursday, 11 am to 12 pm, Wednesday, 3 to 4 pm.
(P. B.):	Monday, Wednesday and Thursday, 1.30 to 2.30 pm;
(W. H. C.):	Monday, Tuesday and Wednesday, 3 to 4 pm.
(S. H. S.):	Tuesday and Wednesday, 1.30 to 2.30 pm.

Please use your *own* instructor's office hours, *not* those of the instructor for a different lecture section.

Tutorial Centre: Teaching assistants will be available in the Statistics Tutorial Centre, MC 6095, to help with laboratory reports and studying for quizzes, at times to be announced in class.

Text: Course Notes (**not** appreciably revised from the Fall term) and separate Laboratories (**revised** from the Fall term) are available for purchase (at about $20 and about $6, including PST and GST) at the Pixel Planet, MC 2018; the Notes include expository text and exercises, statistical tables and old final examinations.

Many of the examples and problems discussed in STAT 231 require an understanding of their context; it is *your* responsibility to ask questions if the context is not clear to you.

If you are having difficulty with the material, it is your responsibility to make use of the resources provided (exercise solutions, T.A. Statistics Tutorial Centre hours, instructor office hours).

Course Calendar:

WEEK STARTING		2-HR TIME SLOT		OTHER COURSE ACTIVITIES	
January	03	Chapter 1	Chapter 2	-----	-----
	10	Chapter 3	Chapter 4	-----	-----
	17	Laboratory 1	Chapter 5	-----	Laboratory 1 report
	24	Chapter 6	Chapter 7	-----	Assignment 1
	31	Laboratory 2	-----	Quiz #1	Laboratory 2 report
February	07	Chapter 8	Chapter 9	-----	Assignment 2
	14	Laboratory 3	Chapter 10	-----	Laboratory 3 report
	21	Chapter 11	-----	-----	Assignment 3
	28	Laboratory 4	Chapter 12	-----	Laboratory 4 report
March	07	Chapter 13	-----	Quiz #2	-----
	14	Chapter 14	Chapter 15	-----	Assignment 4
	21	Laboratory 5	Chapter 16	-----	Laboratory 5 report
	28	Chapter 17	Chapter 18	-----	Assignment 5

For Prof. Steiner's 2.30 pm lecture Section 5, there will be interchange of:
Laboratory 1 and Chapter 5;
Laboratory 4 and Chapter 12.
The laboratory report is still due at the end of the laboratory period.

(*continued overleaf*)

Attendance at laboratories is *mandatory* – proper documentation must be provided for reasons (*e.g.*, illness) for missed laboratories.

Each laboratory report is due no later than the *end* of the laboratory (20 minutes after the hour); *one* report is to be done by each group of three (you and your two laboratory partners).

Please make *sure* you are registered in the section whose classes and laboratories you attend.

Quizzes:

Date	Material covered		Locations
Thursday, February 3	Chapters 1-7,	Laboratories 1, 2	DC 1350, MC 2035, 2038, 4020, 4021, 4059, 4061
Thursday, March 10	Chapters 1-13,	Laboratories 1-4	DC 1350, MC 2035, 2038, 4020, 4021, 4059, 4061

The quizzes will be up to 1½ hour long and will start at 4.45 pm; please sit in *alternate* seats in your quiz room.

Solutions: Solutions to the laboratories will be posted in a display case, in the hallway outside the Statistics Tutorial Centre, MC 6095, the day after the due date and they will stay up until after the marked reports are returned, typically for three weeks in total. These solutions will *not* be available in any other manner at any other time, so please check your report against its outline solution during the time it is posted.

R Link: http://www.stats.uwaterloo.ca/Stats_Dept/StatSoftware/R/

R Tutorial: Go to the R-Tutorial link and select the appropriate computing environment;
before Assignment 1, due in the week of January 24, 2005, do all nine pages of the tutorial.

Practice Problems: These are provided in the Course Notes at the end of the chapters.

Web page: Course information and solutions to the quizzes will be posted in Angel: http://uwace.uwaterloo.ca
Course web page is at: http://www.student.math.uwaterloo.ca/~stat231/stat231_01_05/
You can also follow the **Past Terms** links, starting at stat231_01_02, to useful information.

Final Examination: The final examination will be 3 hours in duration and will be held in the normal examination period (April 8 to April 21); the permitted aids are a calculator and a dictionary. Copies of statistical tables (Appendix B of the Course Notes) will be provided.

Cheating: **Don't**. Any and all instances of cheating will be severely dealt with; possible penalties include *suspension* and *expulsion from the University*. Cheating includes copying the work of others (including previously published solutions) on laboratories, quizzes or midterms and examinations.

If you get help with laboratory reports, make *sure* you give clear and explicit acknowledgement of this help in your submission.

Your instructor may ask you for an explanation of widely divergent grades between laboratory reports and the quizzes and final examination.