Syllabus

Psych 2RA3E: Research Design and Statistics for Behavioral Sciences I
Spring Session: May 6 to June 19, 2008
Lectures: Tuesday & Thursday: 6:30-9:30pm, TSH B126
Tutorials: TBA. TAs will holding several tutorials per week. These will be held in a computer lab on campus. Attendance will not be mandatory, but I recommend that you take advantage of these sessions to complete your assignments under the guidance of your TAs, and to ask them any questions you may have about the course material. **We will determine a tutorial schedule in our first class.**

Instructor: Heather Poole
Email address: poolehl@mcmaster.ca
Phone number: 905-525-9140, ext. 24784
Office: PC 327
Office hours: I will not be holding regular office hours. If you'd like to meet with me, send me an email and I'm happy to set up an appointment.

PLEASE NOTE: Email is highly recommended as the method of contacting me and will be answered promptly. Please put something meaningful in the subject line, such as your name and date (eg. Simons, Jan 17) to help me keep track of which emails have been answered. I check phone messages periodically (not daily), and am not able to return long distance phone calls.

Textbook and Software:
Howell, D. C.: Fundamental Statistics for the Behavioral Sciences (6^{th} ed.).
Note that this textbook is bundled with the student version of SPSS (version 15).

Companion website for the textbook:
http://www.uvm.edu/~dhowell/fundamentals/index.html
There are important links on this web site, including links to detailed explanations of practice questions from the textbook.

Required access to university technology centres:
Lab assignments require SPSS, which is installed in the computer labs. Register for Technology Centre services by getting a MAC ID via MUGSI (http://www.mcmaster.ca/uts/mugsi_reg.htm) if you have not already done so. Registering gives you full access to the labs, an email account, and web space among other services. Student Consultants are available for general help in using the Technology Centres. For more information, visit the Student Frequently Asked Questions page (http://www.mcmaster.ca/uts/students/faqs.htm).

Evaluation:
Your grade in the course will be based on:

- 6 laboratory assignments (12%)
- 2 exams (88%)

Grading Details:
There will be six assignments for this course. Each assignment will be worth 2% of your grade. Some will require SPSS analysis and output as well as step by step work with a calculator. You will receive an assignment every Tuesday and will be required to hand it in one week later (see schedule below). **Late assignments will not be accepted**, and will receive a grade of zero. There will be **no exceptions** to this; if you cannot attend class, you must make alternative arrangements for submitting the assignment prior to the class you will miss. Failure to do so will result in an automatic zero on that assignment.

There will be two exams. There are no make-up exams. If any exam does not take place on the scheduled date due to weather, facilities, or other unforeseen circumstance, it will take place at the beginning of the next scheduled class. Both exams will be completed during class time. There will be one 90-minute **midterm from 6:30-8:00pm on Thursday, May 29** (a one-hour lecture will follow). There will be a **final exam from 6:30-9:30 on Thursday, June 19**. The exams will cover lecture material and assigned textbook material equally, and will cover material from throughout the course (cumulative), though the final exam will have an emphasis on material covered since the midterm. The format of the exams will be discussed in class.
You may bring only an approved calculator, pencils and erasers suitable for multiple-choice scan sheets, and your McMaster student ID card to the exams. An approved calculator is any calculator whose name starts with Casio fx991. Sheets with formulae and statistical tables will be supplied for you.

The instructor reserves the right to alter the evaluation scheme if necessary.
You can choose which evaluation scheme weighting you would prefer, according to the following two options:

	Option 1	Option 2
Midterm	35%	0%
Final Exam	53%	88%
Lab Assignments	12%	12%

Please note that Option 1 is the default option. If you wish to be evaluated according to Option 2, you MUST inform me before the final exam.

A percentage marking system will be used for the individual components. The final percent will be converted to a letter grade using the Senate-approved transformation. In converting the final percent to a letter grade, any values less than 0.5 will be rounded down, and any values greater or equal to 0.5 will be rounded up. For example, 49.4 = F and 49.5 = D-.

The instructor reserves the right to adjust final marks up or down, on an individual basis, in light of special circumstances and/or the individual's total performance in the course. Details of the course requirements may be subject to change. If requirements are altered, a revised course outline will be posted on the class website and the details will be announced in class.

Policies

McMaster University Policy for Medicals and Deferred Exams

Please refer to the Office of the Associate Dean of Science (Studies) for important information regarding missed course work, medical exemptions (including the McMaster medical certificate), exam conflicts, and deferred exams.

Academic Dishonesty

Please be aware of the Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty, as found in the Senate Policy Statements distributed at registration, available in the Senate office, and available online at:
http://www.mcmaster.ca/senate/academic/ac_integrity.htm
Any student who infringes on one of these resolutions will be treated according to the published policy.

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, eg. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, located at http://www.mcmaster.ca/academicintegrity.

The following examples illustrate only three forms of academic dishonesty:

1. Copying or using unauthorized aids on tests and examinations.
2. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
3. Improper collaboration in group work.

Lecture, Assignment, and Exam Schedule

This schedule is tentative, and topics may be added and deleted as needed. Please see the course website for the most recent updates to this schedule.

Date	Lecture topic	Relevant chapters	Assignments
May 6	Scales of measurement, frequency distributions, measures of central tendency	1, 2, 3, 4 (yes, I know that's a lot to start with!)	Receive Assignment 1
May 8	Scales of measurement, frequency distributions, measures of central tendency	1, 2, 3, 4	
May 13	Measures of variation, boxplots, linear transformations, normal distribution	5, 6	Assignment 1 due, Receive Assignment 2
May 15	Measures of variation, boxplots, linear transformations, normal distribution	5, 6	
May 20	Probability, contingency tables	7	Assignment 2 due, Receive Assignment 3
May 22	Probability, contingency tables	7	
May 27	Scientific method, logic of hypothesis testing, errors	8	Assignment 3 due, Receive Assignment 4
May 29	Scientific method, logic of hypothesis testing, errors	8	**MIDTERM EXAM**
June 3	Guest lecturer: Correlation	9	Assignment 4 due, Receive Assignment 5
June 5	Guest lecturer: Correlation	9	
June 10	Central limit theorem, confidence intervals, 1-sample t-tests, effect size	12	Assignment 5 due, Receive Assignment 6
June 12	Central limit theorem, confidence intervals, 1-sample t-tests, effect size	12	
June 17	Dependent samples t-tests, Independent samples t-tests	13, 14	Assignment 6 due
June 19	None	ALL	**FINAL EXAM**