**Psych 2RR3: Research Design and Statistics for Psychologists**

**Winter Session:** January to April 2005

**Lectures:** Location is MDCL/1102  
Monday and Thursday 12:30-1:20; and Tuesday 1:30-2:20.

**Tutorials:** Location is JHE/376  
Thursday at 3:30-4:20 pm

**Course email address:** stats@brain.mcmaster.ca  
**Course web site (Very Important):** [http://www.science.mcmaster.ca/Psychology/psych2rr3/](http://www.science.mcmaster.ca/Psychology/psych2rr3/)

**Course description:** We will study advanced statistical principles in the design and analysis of experiments in psychology. Topics include parametric and non-parametric techniques for single samples, two sample and multi sample designs. Students will gain an understanding of frequency distributions, samples, and sampling distribution of the means, and will learn to make inductive inferences based on significance testing. We will study statistical power and effect size, and the importance of estimating both statistical and practical significance.

**Instructor (see Course web site for office hours):**  
Dr. Judith M. Shedden  
Course Email: stats@brain.mcmaster.ca

**Teaching assistants (see Course web site for office hours):**  
The TAs and the instructor are not able to return long distance phone calls. Email is highly recommended and will be answered promptly. All the TAs, undergrad tutors, and the instructor can be reached at the course email address (stats@brain.mcmaster.ca).  
Your TAs are: Matt Crump, Carl Gaspar, Pete Stewart

**Undergraduate tutors:**  
There are 7 undergraduate tutors for this course. These are A+ students from last year's Psych 2RR3 course who are interested in peer teaching. They will be available at all the Thursday tutorial sessions, where they will provide help to students who require it. The tutors may also be available to schedule individual help sessions by appointment. Funding for the undergraduate tutors is provided by the Faculty of Social Sciences Experiential Education Initiative.

**Required Textbook** (on reserve at Mills and Thode):  
Please refer to: [the Errata web site](http://www.science.mcmaster.ca/Psychology/psych2rr3/) (a link is provided on the 2RR3 course web site) for a list of errors in the textbook, especially make note of the errors on page 81 of the textbook (on at least some copies; some later printings have fixed page 81).

Here is what the corrected top half of page 81 should look like (click on link on the 2RR3 course web page).

**Highly Recommended manual** (on reserve at Mills and Thode):  
SPSS is installed on the computers in the CIS computer labs. Assignments will require SPSS output. This manual is not absolutely necessary but may be useful to you if you are not familiar with SPSS. You could choose to work in groups and share one manual among several students.

**Required access to CIS computer labs:**  
Assignments require SPSS, which is installed in the computer labs. Register for CIS Services via MUGSI ([http://www.mcmaster.ca/cis/mugsi_reg.htm](http://www.mcmaster.ca/cis/mugsi_reg.htm)) if you have not already done so. Registering gives you full access to the labs, an email account, and web space. Student Consultants are available for general help in using the CIS computing labs. For more information, visit CIS Computing Labs website ([http://www.mcmaster.ca/cis/labs/](http://www.mcmaster.ca/cis/labs/)), and the Student Frequently Asked Questions page ([http://www.mcmaster.ca/cis/facilities/faqs.htm](http://www.mcmaster.ca/cis/facilities/faqs.htm)).

**Grade evaluations:**  
Your grade in the course will be based on:  
6 laboratory assignments  
3 exams: Midterm 1, Midterm 2, and the Final Exam
Grading Details:
Laboratory assignments will make up 10% of your final grade. The 6 laboratory assignments will require SPSS analysis and output as well as step by step work with a calculator. Each student will have their own data set provided on the course web pages (click on the "Grades" link in the left panel), and each student must complete the assignments using that data set. All work must be neatly and clearly shown. The lab assignments are due by the end of the day on the due date. They can be placed in the Psych 2RR3 assignment box on the main floor of the Psychology building across from lecture hall 155. It is your responsibility to place your assignment in the box before the building is locked up, which is between 10:30-11:00pm on Thursdays. Alternatively, you can bring your finished assignment to class on Thursday. Late assignments will not be graded and will receive a mark of 0.

There will be 3 multiple-choice exams. There are no make-up exams. 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. Sheets with formulae and statistical tables will be supplied for you. An approved calculator is any calculator whose name starts with Casio fx991. The possible weights for the three exams are presented below. The option that generates the highest value will determine your final grade.

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<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
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<tr>
<td>Midterm 1</td>
<td>15%</td>
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<td>Midterm 2</td>
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<tr>
<td>Final Exam</td>
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<tr>
<td>Lab Assignments</td>
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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 the 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 webpage and the details will be announced in class.

The instructor is not able to reschedule the final exam. If there is a problem with the final exam schedule, students must contact the registrar's office.

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
Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript notation that 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 a academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at http://www.mcmaster.ca/senate/academic/ac_integrity.htm.

The following illustrates 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.