Syllabus Psychology B07: Data Analysis in Psychology

Professor:

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Tues (11 am - noon), Thur (3-4 pm)

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Classes are Tues (1-2 pm), Thurs (1-3 pm), and Fri (1-2 pm) in room S 309.

General Course Overview

This course provides an introduction to many of the statistical procedures used to address psychological issues. I will try my best to explain the situations in which certain tests are appropriate and we will go through the tests at both a conceptual and a numerical level.

In addition to attending classes at the times specified above, you are required to attend one tutorial per week. A listing of the TAs along with their tutorial and office hour information is provided in the table below.

You will not be required to use computers in this class but you will be encouraged to. Most psychologists rely heavily on statistical software when performing their analyses and you could use the same software to check over your homework assignments before handing them in.

To help you in this regard I have created an on-line Statistical Software Tutorial that is designed to take you through many of the tests we will discuss in class. Any of you who are planning to do an honours thesis should definitely take the opportunity to learn the software while you take the class. In a separate handout, I will provide more information on the tutorial and will explain how to find it and get it working.

Teaching Assistants	Tutorial Time	Office Hours
Andrew Weeks Bruce Oddson Tonya Stokes Andrew Portal Liz Head Janine Hazlitt	Tues, 4 pm in R3228 Weds, 9 am in R3328 Weds, 1pm in R3212 Weds, 1pm in R3225 Weds, 1pm in R3228 Tues, 4 pm in R3228	Thur, 3 pm in S-567B Thur, 11 am in S-567B Weds, 3 pm in S-567B Weds, 2 pm in S-567B Weds, 12 pm in S-567B Weds, 10 am in S-567B

Textbook

The Textbook we will be using for the course is the third edition of Statistical Methods for Psychology authored by David C. Howell. We will be covering Chapters 1 through 11 (if all goes according to plan). This text has been used the last few times the course has been offered so there should be some used books around. Previous editions of the text can also be used although I leave it to the student to identify and compensate for any changes that have occurred across editions.

Evaluation

Your mark in this course will be determined on the basis of a final exam (50%), a midterm exam (35%), homework assignments (9%), and dreaded pop quizzes (6%).

The Final Exam will include questions from all of the chapters.

The Midterm Exam will be scheduled a couple of weeks prior to the drop date to insure that you know your midterm mark as well as your marks on some assignments and quizzes prior to the drop date.

There will be nine homework assignments which will each be related to a specific chapter from the textbook. The assignments will be given out in class as we start each new chapter. They will be due the class after we end the relevant chapter. I will not require you to do assignments for the chapters that we cover just before the midterm and final exam (hence 11 chapters but only 9 assignments). Although these assignments are only worth 1% each, they provide excellent practice for the pop quizzes and exams and, as a result, are very valuable in an indirect way.

There will be eight pop quizzes with only your best six counting towards your grade. Note that missing classes is not a good idea because these quizzes cannot be made up. In fact, the primary purpose of the quizzes is to encourage you to show up for class and do your homework assignments.

The dates for the midterm and final exam are not yet finalized. To see the tentative and finalized dates (when available), check the <u>time table</u> page.

Time Table Psychology B07: Data Analysis in Psychology

Critical Dates

Midterm Exam: Oc

October 19 in room ????

Final Exam:

December 11-20 in room ????

Assignments: Assignments are tied to the chapters and are due at the beginning of class after we finished the relevant chapter (e.g., Assignment 1 will be due at the beginning of the first class we have after finishing Chapter 1). After we finish each chapter I will remind you exactly when the assignment for that chapter is due.

Not So Critical Dates

First Day of Classes:

September 11, 1995

Last Day to Add the Course:

September 22, 1995

Last Day to Withdraw without Penalty:

November 3, 1995

Last Day of Classes:

December 8, 1995

Approximate Class Schedule

We cover 11 chapters in 13 weeks. Your first midterm will be written and graded prior to the drop date so that you have a sizable proportion of your mark known at that time. As a result, the course will be split up as follows; Chapters 1-5, midterm, Chapters 6-11, final. That gives us 6 weeks to cover the first 5 chapters, and 7 weeks to cover the last 6. Basically, a chapter a week with overflow. A detailed breakdown is presented below.

Week	Starting	Material to be Covered	
1	Sept. 11	Chapter 1 - Basic Concepts	
2	Sept. 18	Chapter 2 - Describing and Exploring Data	
3	Sept. 25	Chapter 3 - The Normal Distribution	
. 4	Oct. 2	Chapter 4 - Sampling Distributions/Hypothesis Testing	
5	Oct. 9	Chapter 5 - Basic Concepts of Probability	
6	Oct. 16	Overflow and Review for Midterm	
7	Oct. 23	Chapter 6 - Categorical Data and Chi-Square	
8	Oct. 30	Chapter 9 - Correlation and Regression	
9	Nov. 6	Chapter 10 - Alternate Correlation Techniques	
10	Nov. 13	Chapter 7 - Hypothesis Testing Applied to Means	
11	Nov. 20	Chapter 8 - Power	
12	Nov. 27	Chapter 11 - Simple Analysis of Variance	
13	Dec. 4	Overflow and Review for Final	

The "Fairness" Clause

I strongly believe that every student in the class should be evaluated in an identical manner. In order to insure this I must lay down certain ground rules that attempt to prevent any student from gaining any form of special treatment.

- I. I do not give out any marks other than rounding up to the nearest integer. If you end up being one mark away from the next highest letter grade, then that is where you'll stay.
- II. Midterms and Final Exams can only be missed for extreme reasons and formal documentation explaining your absence is required and will be checked up on.
- III. My office hours are meant to assist students who are having difficulties with the course despite regular class attendance. I will not spend office hours reteaching a class to a student who chose not to attend that class.

I realize that these rules make me seem a bit authoritarian. I'm sure you'll soon see that I am actually quite easy going and, hopefully, easy to communicate with. The above rules are only meant to keep all of the students on an equal footing. And I should stress that if you do have a valid reason for missing either exams or classes, I am open to discussing possibilities with you. It's just very important that the reasons be valid.

The B07 Homepage

For those net-surfers out there, I have created a homepage devoted to this course. The home page can be accessed using any browser (e.g., Netscape, Mosaic, etc...) by going to:

http://wave.scar.utoronto.ca/~joordens/stats.html

The homepage includes this syllabus (for those of you with a tendency to lose paper), a course description, more info about me and my research interests, a time table listing critical dates for the course, access to the statistical software tutorial mentioned earlier, and an on-line listing of the marks in the course to date.

It is worth the effort to become comfortable on the net. For those of you who haven't yet surfed, now is a good time to get your feet wet (Sorry, couldn't resist).