PsyB07 - Introduction to Data Analysis

Syllabus

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The purpose of this syllabus is to provide you with as much information as possible about this course. The syllabus contains the following sections, any of which you can jump directly to by clicking on the label below:

Instructor Information

Steve's Homepage

Psychology Handbook

Scarborough Hompage

Instructor: Steve Joordens
Office: S560
Phone: (416) 287-7469
E-mail: joordens@psych.utoronto.ca

Office Hours: Tuesdays 2:30 - 4:00 or by appointment

Teaching Assistant Information

There are five teaching assistants for this course, and each of them have one office hour per week. All office hours are held in room S567B. The TAs and their specific office hours are listed in the table below. To e-mail a specific TA, just click on their name.

Thomas Spalek - T1 & T5	Th 11 am - noon
Marty Niewiadomski - T3 & T6	Fr 2 - 3 pm
Erin Sheard - T2 & T7	Tu 12 - 1 pm
Derryn Jewel	Tu 3 - 4 pm
Dwight Tapp - T4	Mo 1 - 2 pm

Course Description

When someone performs an experiment they end up with a bunch of data. Typically there are two things they want to do with this data. First, they want to be able to communicate their findings to others in a concise and informative manner, often relying on things like graphs or tables of means. Part of what you will learn in this course is how to describe your data in this manner - a branch of statistics called descriptive statistics.

In addition, often the data was collected originally in the hopes of answering some type of experimental question. Certain statistical techniques have been devised to do just this, and the branch of statistics they fall under is called inferential statistics.

In this course we hope to give you an introduction to both descriptive and inferential statistics. The hope is that this introduction will aid you in your reading of experimental studies, and in your ability to critically think about data as it is presented to you in the real world.

Lecture and Tutorial Format

Technically, this course involves 4 hours of lecture per week and 1 hour of tutorial. However, the tutorials and 1 of the lecture hours are optional so, in reality, you only have to attend 3 hours of lecture per week. Specifically ...

New material will be taught on Tuesdays from 1 until 2 pm, and on Thursdays from 1 until 3 pm in room H216. These are the so-called "non-optional" classes although clearly nobody will really be watching to see whether or not you are there.

Not everyone picks up the statistical concepts on their first exposure and because of this I use the Friday 1 until 2 pm class (also in H216) to go over those aspects of the week's lectures that students would like me to review. This lecture will be largely student-driven and will not involve the presentation of any new material. It just gives me the opportunity to make sure

I keep as many students with me as possible.

In addition to these lectures there is also one tutorial hour scheduled per week. When I lecture I often only "work through" problems once or twice in class. The tutorials give you a chance to work through some problems yourself with a TA present to help if you run into problems. Again, these tutorials are optional and are meant to help you master the statistical techniques and concepts presented in the lectures.

Textbook

The textbook used in the course is the 5th Edition of David Howell's *Statistical Methods for Psychology*. I think this is generally a good and readable book, and my lectures will follow it fairly closely.

This edition is new this year and there are used 4th Editions available for sale. This leads to the obvious question - is the 5th Edition necessary? From my reading it seems that the 5th edition is fairly close to the 4th for most of the chapters we cover in this class. Thus, if you are only taking B07, the 4th Edition is likely fine, though if you use it, you are responsible for noting any relevant differences.

However, we also use this text for PsyC08, and many of you may be planning on taking it next term. The chapters we cover in C08 have changed quite significantly across editions and, if you are taking C08 next term, I would recommend you go with the 5th edition.

There is also a *Students Solution Manual* for this text which provides long-form answers to the questions at the end of the chapters. I will place a few copies of this manual on reserve at the library for you to use to check your answers if you wish.

Course Notes

This is not an easy course and the best way to learn it is to listen and think during the lectures. This can be hard to do if you're busy scribbling down every word I say as I say it. Thus, to help out a bit, I have placed power-point versions of my lectures on the course website. These files can be downloaded and printed, and I recommend you have a printed copy of the day's notes with you when you attend lectures. That allows you

to listen and to simply add your own comments here and there instead of noting everything I say.

You should realize though that these notes are basically skeletons of my lecture, skeletons that I add meat to as I teach. They are not meant as lecture substitutes and I doubt they would be very suitable as lecture substitutes.

Evaluation

Your mark in this course will be comprised of three components:

A midterm exam worth 35%,
A final exam worth 55%,
and approximately 8 quizzes worth 10%.

The exams will not be cumulative. Thus, the midterm will cover approximately chapters 1 - 4 (specifics to be provided as the midterm approaches) and the final will cover approximately chapters 5 - 9.

In contrast to previous years, the exams this year will be comprised of some multiple choice (approx 35%) and some short answer questions (approx 25%) in addition to asking you to demonstrate your ability to use the statistical techniques taught in class via long-hand problem solving (approx 40%).

The quizzes are surprise "pop" quizzes that will be done during either the Tuesday or Thursday lectures. Their purpose is to motivate you to keep up with the work as you never know when you'll be quizzed on some concept. The one constraint to this is that you will never be quizzed on a concept until it has been taught in class and you have had an opportunity to attend a tutorial on that concept.

Webpage

Chances are that you are reading this off of the course website. If not, the website is located at:

http://psych.utoronto.ca/~joordens/courses/PsyB07

The course website contains links meant to provide further support to you as a student in PsyB07. A copy of this syllabus

is there, as are the course notes. There is also a link you can use for e-mail support, and a link to a mathematics refresher webpage. This refresher page is very useful for those of you who may not have used your basic math skills for some time, and I highly recommend you check it out if you are feeling at all math-phobic about the course.

Critical Dates

October 20th (1- 3 pm) - Midterm Exam

November 4th - Last day to drop the course

November 30th - Last class

TBA (Dec 10 - 21) - Final Exam