

# PSYB07F

## Data Analysis in Psychology

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**Instructor:** Tom Spalek  
**Email:** thomas@psych.utoronto.ca  
**Lectures:** Tues. 1-2pm, Thurs. 1-3pm and Fri. 1-2pm  
**Location:** S-309

**Office:** S-433  
**Office Hours:** Tues. 12-1pm

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### Tutorials & TAs:

Tutorial	Time	Location	T.A.	Office Hours
T0001	T 11	H-309	Tonya	T 9:30 - 10:30
T0002	T 11	R-3221	Daryl	T 3:00 - 4:00
T0003	T 11	R-5503	Andrew	T 2:00 - 3:00
T0004	R 10	H-408	Shauna	R 12:00 - 1:00
T0005	R 10	R-3205A	Erin	R 11:00 - 12:00

All T.A. office hours will be in S-567B

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### General Course Overview:

Statistics allow us to move beyond just looking at numbers and subjectively infer that some manipulation has made a difference. Instead we can move to a more objective way of testing these effects. So in some cases a very small difference like 3.5 milliseconds may be a reliable difference, and could be theoretically important. But few of us would think so just by looking at it.

This course provides an introduction to the way statistics are used in Psychology. We will cover ways of presenting data so that people can get a lot of information quickly and easily. We will cover ways of looking at data that vary along some continuum (such as reaction times) as well as other ways of looking at data that fall into discrete categories (such as gender). It is hoped that by the end of this course you will be familiar with these basic procedures and be able to apply them in any future research that you might carry out. While most of this material is covered in the textbook, some additional examples will be presented and worked through in class. As well there will be occasional pop-quizzes that will be administered during the lectures. So it is important that you attend the lectures.

Each of you has also been assigned to a tutorial section. These tutorials are designed as refreshers, so the tutorial will cover the material presented in lectures the previous week. Again additional examples will be worked through during this time, and the T.A.s will try to answer any questions that you might have. Since the tutorials have fewer students in them than the lectures, this may provide a less intimidating

environment to students who do have questions. However, both the T.A.s and myself also have office hours where we will be happy to go over material that you are having difficulty with.

**\*\*Note office hours are not places where we will re-teach a lecture that you missed, so attend the lectures and read the material in the text. If you are still having problems with the material then come and see us and we will gladly try to help.\*\***

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### **Textbook:**

The textbook for this course will be *Statistical Methods for Psychology*, 4th Edition. The author of the text is David C. Howell. While earlier editions of the textbook are probably available, it's the responsibility of the student to identify and compensate for any changes across editions.

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### **Evaluation:**

Your mark in this course will be determined by your performance on several measures. There will be two exams, a mid-term (30%) and a final (60%), as well as six pop quizzes (10%). All of these evaluations will be of the same format. You will be given some data, asked to analyze it appropriately, and make some conclusions.

The midterm exam, which is scheduled for October 23rd, will cover whatever material we have covered up until that point in the course. It is scheduled so that there will be sufficient time to mark the exam and give you your marks prior to the drop date (November 5th).

The final will be cumulative, so all of the material covered from the beginning of the course will be fair game. The date of the final will be scheduled by the registrar's office but will be during the Xmas exam period. Make sure that you do not book any vacations during that time period because a vacation is not a valid excuse for missing an exam.

The pop quizzes will be given at various points during the year in the lectures. While six quizzes will be given, only your best five will count towards your final grade. So each quiz is really worth only 2%, but these quizzes are a good way of testing your knowledge of the material prior to the exam. It's much better finding out that you don't really know the t-test very well on a quiz than it is on a final exam.

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### **Calculators:**

Given that numerous calculations will be required throughout this course, you will need to have access to a calculator. This calculator should be able to do the basic functions (add, subtract, multiply and divide) as well as being able to calculate square roots. While you are free to use any calculator that you wish at home, for the quizzes and the exams we will only allow non-programmable ones. If you have any doubts about a specific calculator please see me in the first couple of weeks of the course.

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### Approximate Class Schedule:

We are going to be covering the first 9 chapters of the textbook in this course. However, we are not going to be covering these chapters in order. The following illustrates the order of the chapters we will be covering.

Chapter 1 – Basic Concepts  
Chapter 2 – Describing and Exploring Data  
Chapter 5 – Basic Concepts of Probability  
Chapter 4 – Sampling Distributions and Hypothesis Testing  
Chapter 6 – Categorical Data and Chi-square  
Chapter 9 – Correlation and Regression  
Chapter 3 – The Normal Distribution  
Chapter 7 – Hypothesis Tests Applied to Means  
Chapter 8 – Power

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### Dates to Keep in Mind:

First Day of Classes:	September 14, 1999
Last Day to Add Fall Courses:	September 24, 1999
Midterm Exam:	October 23, 1999
Last Day to Withdraw without Penalty:	November 5, 1999
Last Day of Classes:	December 3, 1999
Final Exam:	December 13-21, 1999

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