

PSYB07F
Data Analysis in Psychology

Instructor: Tom Spalek

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Office Hours: Tues. 12-1pm

Lectures: Tues. 1-2pm, Thurs. 1-3pm and Fri. 1-2pm

Location: S-309

Tutorials & TAs:

<u>Tutorial</u>	<u>Time</u>	<u>Location</u>	<u>T.A.</u>	<u>Office Hours</u>
T0001	T 11	R-5503	Dwight	M 12-1
T0002	T 11	S-208	Bruce	T 3-4
T0003	T 11	H-309	Shauna	W 11-12
T0004	R 10	S-357	Marty	R 3-4
T0005	R 10	S-358	Erin	R 11-12
T0006	R 10	R-2512	Genevieve	R 12-1

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

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.****

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.

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 ??, 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.

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.

Students With Disabilities and Special Needs:

Students with a disability/health consideration are encouraged to approach Tina Doyle and/or the AccessAbility Services Office @287-7560. They can also drop by the office, S302B, inside the Resource Centre. The Coordinator is available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations.

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

Dates to Keep in Mind:

First Day of Classes:	September 12, 2000
Last Day to Add Fall Courses:	September 24, 2000
Midterm Exam:	October ??, 2000
Last Day to Withdraw without Penalty:	November 5, 2000
Last Day of Classes:	December 1, 2000
Final Exam:	December 11-20, 2000
