

PSYC 218
Analysis of Behavioural Data
Section 901 (3 Credits)
Spring Session 2008

Course Time: Monday 7:00 pm to 9:30 pm
Location: Buchanan A202

Instructor:

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Teaching Assistant:

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Course Description

Introduces behavioural data analysis; the use of inferential statistics in psychology and conceptual interpretation of data; experimental design (laboratory, field research methods); presentation of data analyses in reports. Credit will not be given for both PSYC 218 and 318.

Required Textbook(s)

Pagano, R. R. (2007). *Understanding Statistics in the Behavioural Sciences* (8th ed.). The textbook also has a companion study guide available for purchase (not required for this course) and a companion website at www.thomsonedu.com/psychology/pagano. Additionally, internet resources will be used and provided to students to highlight course concepts.

Prerequisites and/or Course Restrictions

Psyc 217 is a prerequisite for this course. Additionally, Grade 11 Mathematics is a prerequisite for university entrance, so I think it is reasonable to assume you are familiar with basic algebra, fractions, and so on. The textbook has a helpful review in Appendix A.

Course Format

The course is comprised of 11 lectures, a midterm exam (40%), and a final exam (60%). We will often be working on example problems in class, so bring a calculator with you. You will also need a calculator for exams. A simple calculator with a square root function will be sufficient. The memory of all graphing calculators will be cleared before each examination. You may not use a PDA, cell phone, or laptop computer during the examinations.

Computer labs

The lab computers in Kenny 2101 available on a drop-in basis at times when classes are not scheduled . As well as SPSS (software for statistical analysis), the computers have internet access, MS Office, etc. To use the computers you will need to sign up for an id and password (see the TA). For printouts you will need an account (minimum \$5.00, again see TA). There will be no marks assigned to computer use. However students are strongly encouraged to take advantage of this opportunity to learn computerized data analysis

Examinations

There will be two examinations: a midterm examination and a final examination. Examinations will be closed-book. However, a formula sheet will be provided. The formulas will similar to Pagano Appendix B, but without their description. In other words, you will not need to memorize formulae in detail, but you will need to be able to recognize the one you should use.

The midterm examination will be written in class on Monday, February 11th and is worth 40% of your grade. The final examination will be written during the examination period at the time and place designated by the Registrar and is worth 60% of your grade. You must be available to write your final exam at any scheduled time during the official exam period.

The final examination will be cumulative. Both examinations will be composed of multiple-choice questions, fill-in-blanks questions, and short answer questions. Details about each examination (number and types of questions) will be presented at the beginning of the last lecture before each examination. After the final lecture before each exam, there will be an optional tutorial class during the scheduled class period. These tutorials provide students with an opportunity to ask questions about the course material. There will be no discussion of the examinations during these tutorial classes. You are responsible for all assigned text chapters and all lecture material.

You need to bring a valid UBC student card to each examination.

Missed Exams: Examinations which are not written will receive a grade of zero. If you miss an examination due to an unavoidable emergency situation, please contact me as soon as possible to arrange to make up the exam. Documentation (e.g., physician's note) will be required. If you miss an examination in the exam period, please notify me as well as the Faculty of Arts.

Grading

I am required by the UBC Psychology Department to produce a class average between 63 and 67%. This means that your final grade will be based on your *rank* within the class. Grades for the midterm examination will be scaled to reflect this grade distribution.

Academic Misconduct

Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to a student's transcript. If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult your instructor. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (<http://students.ubc.ca/calendar>) and read the University's Policy 69 (available at <http://www.universitycounsel.ubc.ca/policies/policy69.html>).

Human Subject Pool Participation

Up to 3% of the final mark can be obtained by participating in experiments conducted in the Psychology Department. See <http://hsp.psych.ubc.ca>. These marks are added on to the final grade obtained for exams and assignments. One hour of participation = 1% extra credit.

Psyc 218 Lecture and Reading Schedule

January 7 th	Lecture 1	Algebra Statistical notation Measurement scales Frequency distributions Graphs Exploratory data analysis	Appendix A Chapter 1 Chapter 2 Chapter 3
January 14 th	Lecture 2	Percentiles Central Tendency Variability	Chapter 3 Chapter 4
January 21 st	Lecture 3	Normal curve Standard scores Z-scores Other standard scores Use of standard scores	Chapter 5
January 28 th	Lecture 4	Correlation	Chapter 6
February 4 th	Lecture 5	Regression	Chapter 7
February 11 th	Midterm Exam		
February 18 th	Midterm Break		
February 25 th	Lecture 6	Probability Binomial Distribution	Chapter 8 Chapter 9
March 3 rd	Lecture 7	Hypothesis Testing	Chapter 10
March 10 th	Lecture 8	Power	Chapter 11
March 17 th	Lecture 9	Sampling distribution of the mean z-test	Chapter 12
March 24 th	Easter Monday		
March 31 st	Lecture 10	T-test for single samples	Chapter 13
April 7 th	Lecture 11	Paired t-test Independent t-test	Chapter 14