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		Office hours:	Fridays 11am-1pm or by appointment
Teaching Assistant:	Alex Yu	Kenny 3525	Email: alex.yu@psych.ubc.ca
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Project Coordinator:	Stefan Bourrier	Kenny 3508	Email: scbourrier@psych.ubc.ca
		Office hours:	by appointment only
Lectures:	T, Th 8:00-9:20 am	Buch B215	
Lab:	Wed 2:00-3:50 pm	Buch D217 (Term 2 Buch D317)	

Course Description

In this course you will become an informed consumer, user, and designer of behavioral research methods. This means learning how to plan experiments, organize data, perform various statistical procedures, and communicate your research in words and in print. There are three distinct parts to the course. One deals with the nuts and bolts of statistical analysis and research design; this will be covered in Tue-Th lectures and the Pagano textbook. A second part deals with the hands-on analysis of various data sets; here the open source JASP software is a primary resource. But this course is worth 8 credits (not the usual 6). That means there is also a laboratory project in this course that runs parallel to the lecture component. Think of this as your “thesis project,” the one that will indicate to your future employers and academic supervisors that you are able to conduct all the steps in a research project, from understanding its purpose to communicating its findings. 30% of your entire grade in this course is based on your work on this project. The Project Coordinator is entirely responsible for setting and grading your assignments in this portion of the course. More details concerning this part of the course will be given to you in the Lab scheduled for this course.

Approach to Learning

Lectures cover basic statistical concepts and methods. There is much overlap with the textbook, but lecture material is presented from a somewhat different perspective, in order to give optimal opportunity for different learning styles. Lectures and assignments emphasize “active learning.” You will consistently be encouraged to ask “what if?” and “let’s see how things look differently if we do them this way.” The JASP and project portions of the course are even more “hands on.” It is ultimately your responsibility to make sure that your work in the project is on a topic of interest to you that you are getting the supervision you need to complete the project. As we say at UBC, *tuum est!*

Three Requirements

Calculator It is your responsibility to bring one to each class and exam. It should have basic memory functions and square/square root functions. You will not be permitted to use devices with outside connectivity (i.e., phones).

Old-fashioned Notebook Absolutely essential! In this class we will use paper, you will work on problems by hand on paper, you will create your own notes to be used in exams on paper, you will hand in responses on sheets of paper you tear out of your notebook. You will need paper!

Textbook Understanding Statistics (10th edition or earlier), by R. Pagano

Weekly Homework

Ten (10) weekly homework assignments found at the end of each chapter. This means you should attempt (i.e. come up with answers for) all of the questions at the end of any 10 chapters of the text for 1 point each chapter. The answers to many of the questions can be found at the back of the textbook. Your weekly homework answers are NOT graded. We simply collect them and note them as 1 (complete) or 0 (missing). All weekly homework (i.e. end-of-textbook-chapter questions) is due exactly one week from when it is listed in the course schedule. For example, Chap 1 homework is covered Thursday September 8th and the homework is due one week from then, Thursday September 15th. It is your responsibility to hand in your homework. No exceptions will be made and no grade will be assigned for late submissions.

JASP Assignments

Four (4) assignments will demonstrate your ability to use JASP to accomplish basic statistical and graphing functions. During these sessions, you will receive a brief lecture on how to perform a number of introductory functions with JASP. Short lab assignments will be given that you will have time to work on in the lab and ask questions, as well as during class time. Assignments are due the following week at the **beginning** of the lab.

Grading

Exams will cover material from the lectures, labs and textbook. Expect the end of year grades to have a mean of 75% and a standard deviation of 11%.

Midterm exams (4)	40% (10% each)
Weekly homework (pick 10 chapters)	10% (1% each)
JASP labs (homework & exam)	10% (5% homework and 5% exam)
In-class participation (lecture & lab)	10% (in class/in lab)
Presentations (3-min & final)	5% (1% introduction presentation, 4% final presentation)
Research Project	25% (see the lab syllabus for the grade breakdown)

Missed Exam and Assignment Policy

Only medical reasons will be accepted for missing an exam or assignment. For any absence you must notify me (rwhitwell@psych.ubc.ca) or the Psychology Department office (822-2755) in advance of the deadline. If you show up AFTER a deadline saying you were sick, you will receive no credit.

Psychology Department's Position on 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. 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. All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. 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 University policies and procedures, please see Student Conduct and Discipline in the UBC Calendar www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,0,0

Week	Chapter and Lecture Topic
Tuesday Sep 6	Imagine Day – no classes
Sep 8	Chap 1 Introduction to behavioral research and statistics
Sep 13 & 15	Chap 2 Basic measurement concepts
Sep 20 & 22	Chap 3 Frequency distributions
Sep 27 & 29	Chap 4 Central tendency and variability
Tuesday Oct 4	MIDTERM EXAM #1 IN CLASS
Oct 6	No class (Prepare your introductory presentation for next week!)
Oct 11, 12, & 13	3-min presentations in Lecture (11 th & 13 th) and in Lab (12 th)
Oct 18 & 20	Chap 5 Normal curve and standard scores
Oct 25 & 27	Chap 6 Correlation
Nov 1 & 3	Chap 7 Linear Regression
Nov 8 & 10	Chap 8 Random Sampling and Probability
Tuesday Nov 15	MIDTERM EXAM #2 IN CLASS
** Bring your laptop to all JASP labs in Nov**	
Nov 17	JASP Lab 01: Introduction to JASP/Correlation/Regression
Nov 22 & 24	JASP Lab 02: Correlation/Regression/Univariate Statistics
Nov 29	JASP Lab 03: Univariate Statistics (t-tests)
Thursday Dec 1	JASP EXAM IN CLASS
Jan 3 & 5	Chap 9 Binomial Distribution and Probabilities
Jan 10 & 12	Chap 10/11 Hypothesis Testing & Statistical Power
Jan 17 & 19	Chap 12 Sampling Distributions & the z-test
Jan 24 & 26	Chap 13/14 t-tests
Tuesday Jan 31	MIDTERM EXAM #3 IN CLASS
Feb 2 & 7	Chap 15 Type I Error, Multiple Comparisons, and Analysis of Variance
Feb 9 & 14	Chap 16 One-Way and Two-way Analysis of Variance
Feb 16	Repeated measures Analysis of Variance
Feb 21 & 23	Study Break – no classes
Feb 28 & Mar 2	Split-Plot (Mixed Design) Analysis of Variance
Tuesday Mar 7	MIDTERM EXAM #4 IN CLASS
Mar 9	No class (Prepare your final project presentation for next week!)
Mar 14 & 16	PROJECT PRESENTATIONS in class
Mar 21 & 23	PROJECT PRESENTATIONS in class

Mar 28 & 30 PROJECT PRESENTATIONS in class
Apr 4 & 6 Final project preparation week...*or if needed* PROJECT PRESENTATIONS in class

Friday Apr 7 Final Project Paper due by 4:00 pm to Project Coordinator

** All grade appeals must be made in writing to Dr. R. Whitwell, 3503 Douglas Kenny Building **