

Prof James T. Enns	Office CIRS 4355	Email: jenns@psych.ubc.ca
	Phone 604-822-6634	
Lectures	TTh 11:00 am -12:20 pm in Friedman 153	
Lab Coordinators	Raymond MacNeil	Email: raymond.macneil@psych.ubc.ca
	Manlu Liu	Email: manlu.liu@psych.ubc.ca
Labs	TH 2:00-4:00 and TH 4:00-6:00 pm in Swing 205	

Course Description

In this course you will become an informed consumer and user of statistical methods. This includes learning how to organize data, performing statistical procedures, planning experiments, and communicating your research in words and print. There are two distinct parts to the course. One deals with the nuts and bolts of statistical analysis and research design; this will be covered in Tuesday-Thursday lectures and the Pagano textbook. A second part deals with the hands-on analysis of various data sets and the presentation of scientific information; this laboratory component runs in parallel to the lectures on Thursday. And to reflect this intensity, this course is worth 4 credits (not the usual 3). The Lab Coordinators are 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 introductory 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 be encouraged to ask "what if?" and "let's see how things look differently if we do them this way."

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).

Laptop/Tablet We will use some open source software in class to illustrate ideas.

<https://www.jamovi.org/download.html>

Please download a version that works on your device and have it available in class. We will **not** access this software on tests.

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) sets of weekly homework assignments found at the end of each chapter (do the questions in

any chapter for 1 point). Answers to many questions can be found at back of text but this must still be your own work. Homework must be completed in handwriting/printing and is NOT graded. We simply note them as 1 (complete) or 0 (missing). All homework is due each Tuesday, exactly one week from when it is listed in the course schedule (e.g, Chap 1 due the Tuesday following its listing on the schedule). No exceptions and no grade for late assignments. If your homework matches another students' work word-for-word or font-for-font you will both receive no credit for ALL assignments.

Grading

Lecture Components	
Midterm exams	20%
Weekly homework	10%
Final Exam	30%
Lab Components	
Written Assignments	20%
Poster Presentation	10%
Research Paper	10%

Missed Exam and Assignment Policy

Only medical reasons will be accepted for missing an exam or assignment. For any absence you must notify me (jenns@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.

Academic Concession

Please consult the evolving UBC guidelines on academic concession and student self-declaration. <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,329,0,0#26573>

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

LECTURE SCHEDULE (Tue & Thurs 11-12:30)

Week	Chapter	Topic	Date
1	Pagano 3	Introduction Frequency Distributions	Jan 7
2	Pagano 4	Central Tendency Variability	Jan 14
3	Pagano 5	Standard Scores Normal Distribution	Jan 21
4	Pagano 6	Correlation Part 1 Correlation Part 2	Jan 28
5	Pagano 7	Regression Part 1 Regression Part 2	Feb 4
6	Midterm Exam 1		Feb 11
	Pagano 10	Hypothesis Testing	
		----- READING BREAK -----	
7	Pagano 11	Statistical Power	Feb 25
8	Pagano 12	Sampling Distributions z-test	Mar 3
9	Pagano 13 Pagano 14	t-test Part 1 t-test Part 2	Mar 10
10	Midterm Exam 2		Mar 17
11	Pagano 15	Analysis of variance	Mar 24
12	Pagano 16	Factorial ANOVA	Mar 31
13	Repeated Measures and wrap-up		Apr 7
Final Exam			TBA

LAB SCHEDULE (Thursday 2-4, 4-6 pm)

Week	Topic	Date
1	Introduction, Form Groups How to write Methods	Jan 9
2	APA format, plagiarism Settle on Group Data Set	Jan 16
3	Methods Section: Individual due with Peer Eval in class	Jan 23
4	Method Section: Group due How to write Results	Jan 30
5	Results Section: Statistics Writing Workshop	Feb 6
6	No Lab since Midterm Exam 1 this week Results Section: Individual due to Canvas for Peer Eval	Feb 13
----- READING BREAK -----		
7	Results Section: Group due How to write Introduction	Feb 27
8	Introduction: Individual due with Peer Eval in class	Mar 5
9	Introduction: Group due How to write Discussion	Mar 12
10	No Lab since Midterm Exam 2 this week	Mar 19
11	Discussion: Individual due with Peer Eval in class Group Presentations begin	Mar 26
12	Discussion: Group due Group Presentations finish	Apr 2
13	Final Group Papers Due	Apr 9

* Expect the end of year grades to have a mean of 75% and a standard deviation of 11%.

** All grade appeals must be made in writing to the Instructor