Psychology 300A (A04)
Statistical Methods in Psychology
Fall Session 2016

	Instructor	**Teaching Assistant**
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Office Hours	Mon/Wed, 3:30pm–4:30pm	By Appointment

Lecture Time: 2:30pm – 3:20pm, Monday, Wednesday, Thursday
Location: Cornett B143

Tutorial Time: 11:30am – 12:20pm, Tuesday & Wednesday
Location: Clearihue A118

Required Text: Pagano, R. R. (2012). *Understanding statistics in the behavioral sciences* (10th edition). Belmont, CA: Wadsworth/Cengage Learning.
Course Website: A course website at coursespaces.uvic.ca will be used for posting the course outline, slides used during lectures, assignments, and grades

Course Description and Objectives

This course will provide a conceptual and practical understanding of descriptive and inferential statistics as applied to psychological research. Scientific knowledge in psychology relies greatly on the use of statistics. An understanding of the core statistical concepts will enable you to become a critical consumer of scientific claims. We will provide you with the tools necessary to help you develop the skills needed to evaluate and carry out statistical analyses in psychological research. These skills include:

- Explaining the logic and theory underlying each analysis and implementing the computational procedures
- Applying the appropriate test statistic given a particular research design and data
- Describing the strengths and weaknesses of a given research study
- Correctly interpreting and communicating the results of an analysis

Prerequisites

- Completion of core requirements for Psychology Majors & Honours, or declaration of Major or Honours in Linguistics (BSc)

General Format

Lectures: We will meet three times per week for lectures and at least once per week for tutorials. To give everyone ample time to complete their assignments as soon as possible I will try (but cannot guarantee) to stay approximately 1 week ahead.

*Tutorials***:** Two tutorials will be offered each week. **It is highly recommended that you attend at least one tutorial each week.** The tutorials will allow you to work through the problems from the weekly assignments with the support of your classmates and your very knowledgeable and helpful TA. These tutorials will be extremely valuable in facilitating your understanding of the course content and placing you in the best position to succeed on the tests and exams.

Course Requirements and Evaluation

Final grades will be calculated based on the following specific elements:

Evaluation	Date	% of Grade
Weekly Assignments	Due by end of class each Thursday	10%
Test #1 (chapters 1-4)	Thursday, September 29	15%
Test #2 (chapters 6-7)	Thursday, October 20	20%
Test #3 (chapters 5, 8, 9)	Thursday, November 17	20%
Final Exam (cumulative)	TBD December 5–19	30%
In-Class Activities	Throughout	5%

Assignments
Weekly assignments are posted on CourseSpaces. Assignments are to be submitted by the **end of lecture on Thursday** the week they are due (or earlier). Solutions to assignments will be discussed in tutorials. It is recommended that you complete all the exercises in the Pagano Text, whether they are specifically assigned or not. You will receive credit for completing assignments on time. Assignments will not be graded, but we will check your assignment for completeness and to ensure sufficient effort was given. Note that the 10% for assignments are the easiest marks and most important work you will do. By doing it and participating in tutorials you will not only guarantee yourself 10/10 but you will be better prepared for (and likely get higher grades on) the tests and exams.

Tests/Exams
Tests and Exams will be open book, and will include calculations, short answer and multiple choice questions. **Bring Your Calculator**. Tests will focus on material covered since the last test/exam but may require use of previous material (statistics knowledge is cumulative). Final Exam will be cumulative and will be scheduled during the exam period (Do NOT plan any trips until the exam schedule is posted). Pre-booked travel plans are NOT a valid reason for missing the exam.

Missed Exams: It is the student's responsibility to attend in-class exams as scheduled. **There will be no make-up exams**. Students who miss an in-class exam will receive a mark of zero unless they have a case of documented illness or family emergency. If you miss an exam due to illness, accident, or family affliction, you must notify me (via email or telephone message) on or before the exam date. In addition, you must submit written documentation justifying your absence (e.g., a doctor's note) within one week. If your documented justification for missing an exam is accepted, then you will be assigned a score based on the class average for that midterm and on how well you do, relative to the rest of the class, on the remaining exams. **If you miss two or more tests you will receive an "N" in the course**.

You must write the Final Exam to pass the course. If you are unable to attend the final exam you must apply to Records Services for a "Request for Academic Concession", typically within 10 working days of the exam date. If an academic concession is granted for the final exam, an alternative date to write the make up exam must be arranged with the instructor. If you do not take the final exam, you will received an "N" in this course regardless of the course percentage earned up until the exam.

In-Class Activities
There will be 2-4 in-class activities throughout the term. These activities will be graded for correctness (worth 5% of your total grade). They will be designed to prepare you for upcoming exams and may either be in the form of a group task or problems to solve individually. The dates of these class activities may vary from the tentative schedule (see below) depending on the class progress. You will be given ample notice when these activities will take place. You are expected to attend class and participate in class activities.

Tentative Schedule of Classes

This is a guide only. Topics covered in class may not correspond exactly with this outline. You will be responsible for all material assigned in the readings as well as all material covered in class. I will keep to this schedule as closely as I can. You may notice that the lectures occur about 1 week before the assignments are due for any particular chapter. This is to give you time to absorb that material, work on the assignment, ask questions if needed and finish all aspects of each assignment.

Week	Date	Lecture Topic	Tutorial
1	Wed Sep 7	Introduction and Course Overview; Scales of measurement; Variables (Ch. 1-2)	
	Thur Sep 8		
2	Mon Sep 12	Measurement (Ch. 2), Frequency Distributions (Ch. 3)	
	Tues Sep 13		Assignment 1 (Ch. 1-2)
	Wed Sep 14	Frequency Distributions (Ch. 3)	Assignment 1 (Ch. 1-2)
	Thur Sep 15	Frequency Distributions (Ch. 3) **Assignment #1 Due**	
3	Mon Sep 19	Measures of Central Tendency (Ch. 4)	
	Tues Sep 20		Assignment 2 (Ch. 3)
	Wed Sep 21	Measures of Central Tendency/Variability (Ch. 4)	Assignment 2 (Ch. 3)
	Thur Sep 22	Measures of Variability (Ch. 4) **Assignment #2 Due**	
4	Mon Sep 26	Correlation (Ch. 6)	
	Tues Sep 27		Assignment 3 (Ch. 4)
	Wed Sep 28	Correlation (Ch. 6)	Assignment 3 (Ch. 4)
	Thur Sep 29	**Test #1 (15%) Chapters 1 – 4 Assignment #3 Due**	
5	Mon Oct 3	Correlation (Ch. 6)	
	Tues Oct 4		Assignment 4 (Ch. 6)
	Wed Oct 5	Regression (Ch. 7)	Assignment 4 (Ch. 6)
	Thur Oct 6	Regression (Ch. 7) **Assignment #4 Due**	
6	Mon Oct 10	*Thanksgiving (No Class)*	
	Tues Oct 11		No Tutorial
	Wed Oct 12	Regression (Ch. 7)	No Tutorial
	Thur Oct 13	Class Activity	
7	Mon Oct 17	Normal Curve (Ch. 5)	
	Tues Oct 18		Assignment 5 (Ch. 7)
	Wed Oct 19	Normal Curve, Standard Scores (Ch. 5)	Assignment 5 (Ch. 7)
	Thur Oct 20	**Test #2 (20%) Chapters 6 – 7 Assignment #5 Due**	

Week	Date	Lecture Topic	Tutorial
8	Mon Oct 24	Standard Scores; Random Sampling (Ch. 8)	
	Tues Oct 25		Assignment 6 (Ch. 5)
	Wed Oct 26	Random Sampling, Probability (Ch. 8)	Assignment 6 (Ch. 5)
	Thur Oct 27	Probability (Ch. 8) **Assignment #6 Due**	
9	Mon Oct 31	Binomial Distribution (Ch. 9)	
	Tues Nov 1		Assignment 7 (Ch. 8)
	Wed Nov 2	Binomial Distribution (Ch. 9)	Assignment 7 (Ch. 8)
	Thur Nov 3	Binomial Distribution (Ch. 9) **Assignment #7 Due**	
10	Mon Nov 7	Lecture Catch-up/Class Activity	
	Tues Nov 8		No Tutorial
	Nov 9 – 11	***Reading Break (No Classes)***	No Tutorial
11	Mon Nov 14	Hypothesis Testing (Ch. 10)	
	Tues Nov 15		Assignment 8 (Ch. 9)
	Wed Nov 16	Review	Assignment 8 (Ch. 9)
	Thur Nov 17	**Test #3 (20%) Chapters 5, 8, 9** **Assignment #8 Due**	
12	Mon Nov 21	Hypothesis Testing (Ch. 10)	
	Tues Nov 22		Assignment 9 (Ch. 10)
	Wed Nov 23	Hypothesis Testing (Ch. 10)	Assignment 9 (Ch. 10)
	Thur Nov 24	Sampling Distributions (Ch. 12) **Assignment #9 Due**	
13	Mon Nov 28	Sampling Distribution of the mean (Ch. 12)	
	Tues Nov 29		Assignment 10 (Ch. 12)
	Wed Nov 30	Normal Deviate Test (z-test) (Ch. 12; *not pp. 317-323*)	Assignment 10 (Ch. 12)
	Thur Dec 1	Lecture Catch-up/Class Activity/Review **Assignment #10 Due**	
	TBA Dec 5-19	**Cumulative Final Exam (30%)**	

A few additional notes:

Calculator
You will need a calculator for this course. Pretty much any calculator will do as long as it has a square root function. You are encouraged to bring your calculator to each lecture/tutorial. Calculators will be needed for tests/exams. I would not recommend using the calculator on your mobile device, as this will not be permitted during tests/exams.

Math Knowledge
We will not use any math above approximately a grade 10 or 11 level. If you are concerned about your math skills or want a review, see Appendix A in the textbook (p 553-562). It covers everything you need to know. Many of the questions of Assignment #1 are based on the equations that we will learn for this course. Thus, it is important for you to know how to solve those questions and have good command of working with the appropriate order of operations. If you have trouble with them, please consult with your TA sooner than later.

Text Book Tidbits
All equations, including their descriptions and the first page on which they are mentioned, are listed in Appendix B. Inside the back cover provides a list of symbols, descriptions and first page mentioned. This textbook will also be used for PSYC 300B A04 during spring 2017.

Grading Policy
As per university policy, your final grade in the course will be based on your total percent score. Grades that end with a decimal point of 0.5 or above will be rounded to the next higher whole number, and grades that end with a decimal point below 0.5 will be rounded to the next lower whole number:

A+ = 90 – 100%	B+ = 77 – 79%	C+ = 65 – 69%	F = 0 – 49%
A = 85 – 89%	B = 73 – 76%	C = 60 – 64%	N = incomplete*
A- = 80 – 84%	B- = 70 – 72%	D = 50 – 59%	

*If you do not complete final exam you will receive an "N" for the course.

Important Notes
1. Please feel free to talk with me during office hours or by appointment anytime during the semester. If there is a problem that is negatively affecting your course performance, contact me as early as possible so that we can develop a plan to help you succeed in this class.
2. It is your responsibility to check your registration status by the drop deadline to ensure that you are registered in the course. Deadlines for 100% fee reduction is **September 20th** for fall courses. Last day to add courses online is **September 23**. Undergrad course adds after this date will require an Undergraduate Course Change form and are subject to the approval of the Director of the Academic Advising Centre.

Important Course Policy Information
Winter 2016-2017

Prerequisites

Students who remain in courses for which they do not have the prerequisites do so at their own risk. Students who complete courses without prerequisites ARE NOT exempt from having to complete the prerequisite course(s) if such courses are required for the degree program.

Program Requirements

For more information see pages 383-386 of the UVic Calendar 2016-17.

Registration Status

Students are responsible for verifying their registration status. Registration status may be verified using My Page, View Schedule. Course adds and drops will not be processed after the deadlines set out in the current UVic Calendar.

Commitment to Inclusivity and Diversity

The University of Victoria is committed to promoting, providing and protecting a positive and supportive and safe learning and working environment for all its members.

In the Event of Illness, Accident or Family Affliction (See UVic Calendar, 2016-17, p. 59-60)

- *What to do if you miss an exam other than one scheduled during the formal examination period*

Do not apply at Records Services for a "Request for Academic Concession". Instead submit documentation of the illness, accident or family affliction directly to your course instructor (or designated teaching assistant).

- *What to do if you miss an exam scheduled during the formal exam period*

Apply at Records Services for a "Request for Academic Concession", normally within 10 working days of the end of the formal examination period. Records Services will forward the form to the instructor. If the concession is granted the instructor will determine how to deal with the situation (for example, a deferred exam). Where a concession is not applied for or where such application is denied, an N grade will be entered on the student's academic record.
OR, you can download the Request for Academic Concession form here:
http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf

- *What to do if you require additional time to complete course requirements*

Apply at Records Services for a "Request for Academic Concession", normally within 10 working days of the end of the formal examination period. Records Services will forward the form to the instructor. If the concession is granted the instructor will determine how to deal with the situation. Where a concession is not applied for or where such application is denied, an N grade will be entered on the student's academic record.
OR, you can download the Request for Academic Concession form here:
http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf

Policy on Academic Integrity including Plagiarism and Cheating
The Department of Psychology fully endorses and intends to enforce rigorously the Senate Policy on Academic integrity (http://web.uvic.ca/calendar2016-09/undergrad/info/regulations/academic-integrity.html , p. 55-58, UVic Calendar 2016-17). It is of utmost importance that students who do their work honestly be protected from those who do not. Because this policy is in place to ensure that students carry out and benefit from the learning activities assigned in each course, it is expected that students will cooperate in its implementation.

 The offences defined by the policy can be summarized briefly as follows:
1. **Plagiarism**. You must make sure that the work you submit is your work and not someone else's. There are proper procedures for citing the works of others. The student is responsible for being aware of and using these procedures.

2. **Multiple Submission**. Only under exceptional circumstances may a work submitted to fulfill an academic requirement be used to satisfy another similar requirement. The student is responsible for clarifying this with the instructor(s) involved.

3. **Falsifying Materials Subject to Academic Evaluation**. This includes falsification of data, use of commercially prepared essays, using information from the Internet without proper citation, citing sources from which material is not actually obtained, etc.

4. **Cheating on Assignments, Tests, and Examinations**. You may not copy the work of others in or out of class; you may not give your work to others for the purpose of copying; you may not use unauthorized material or equipment during examinations or tests; and you may not impersonate or allow yourself to be impersonated by another at an examination. The Department of Psychology has a policy of not making old examinations available for study purposes. Therefore, use of old exams without the express written permission of the instructor constitutes cheating by the user, and abetting of cheating by the person who provided the exam.

5. **Being an Accessory to Offences**. This means that helping another student to cheat (for instance, by showing or communicating to them answers to an assignment, or by allowing them to view answers on an exam) is an academic offence.

Instructors are expected to make every effort to prevent cheating and plagiarism. This may include the assignment of seating for examinations, asking students to move during examinations, requests to see student identification cards, and other measures as appropriate. Instructors also have available to them a variety of tools and procedures to check for Internet and electronic media-based cheating. In instances of suspected or actual plagiarism or cheating, instructors, following prescribed procedures, are authorized to take steps consistent with the degree of the offence. These measures will range from a zero on the test or assignment or a failing grade for the course, probation within a program to temporary or even permanent suspension from the University.

Rights of Appeal are described in the Policy on Academic Integrity in the University calendar (on p. 55-58 in 2016-17).

The definitive source for information on Academic Integrity is the University Calendar (p. 55-58 in 2016-17) (http://web.uvic.ca/calendar2016-09/undergrad/info/regulations/academic-integrity.html)
Other useful resources on Plagiarism and Cheating include:
1. The Learning Skills program: http://www.coun.uvic.ca/learning/index.html
2. The Ombudsperson's office: http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf