PSYCHOLOGY 300A – Section A01
Statistical Methods in Psychology I
Summer (May - June) 2016

Time: MW 10:30 am – 12:20 pm; F 10:30 am – 11:20 am	**Room:** COR B135
Instructor: David Medler **Office:** COR A277 **Office Hours:** By Appointment **Phone:** 250-721-6108 (email is preferable) **Email:** dmedler@uvic.ca	**Teaching Assistant:** Stacey Ross **Office:** COR A063 **Office Hours:** By Appointment **Phone:** 250-721-7552 (email is preferable) **Email:** slross@uvic.ca

COURSE DESCRIPTION AND OBJECTIVES

To provide a conceptual and practical understanding of descriptive and inferential statistical analysis as applied to experimental research in psychology. Because I believe that learning and teaching is a bi-directional process between student and instructor, I anticipate that we will both prepare for each class. To maximize this process, text material and topic objectives have been established for each class session.

REQUIRED TEXT: Psyc 300A CoursePack, from the bookstore as well as on the course CourseSpaces site.

PREREQUISITES and REGISTRATION

The prerequisites for Ψ300A include:
1. The completion of core requirements for Psychology Majors & Honours, or declaration of Major or Honours in program in Linguistics (BSc).
2. The completion of Math 12 (Pre-Calculus) or its equivalent (e.g, Math 120 at UVic) with a minimum grade of pass (50%) *is highly recommended!*.

NOTE regarding registration. Registered students who do not attend at least one class during the first two scheduled class sessions may be dropped from the class. Priority for waitlisted students will be given to those students who have met all course pre-requisites and attended the first two class sessions. Students are responsible for checking their registration status before the end of the course change period (May 15, 2016). Students will not be added to the course after this time.

TOPICS COVERED

Visual & numerical description of univariate & bivariate data, including correlation and regression; probability theory as it relates to inferential analysis; hypothesis testing; application of z-test and t-tests to single sample designs; communication of statistical findings.

GENERAL FORMAT

Course material will be presented in 4 sections through text readings, lectures, hand outs, graded in-class group activities, and ungraded homework assignments. At the start of each new section, a Class Prep outline is distributed that details the related text readings for each day and the material you are expected to review prior to class lectures and in-class exercises. Answer keys for exercises & homework are available through CourseSpaces.

CourseSpaces SITE

All course material, including detailed lecture notes, is available through CourseSpaces, which you can access by logging in through U-Source. This site will have all course lecture material with the accompanying overheads that are presented in class. It will also have blank copies of class exercises and homework assignments and their respective answer keys. Most files are in pdf format.

COURSE EVALUATION

Comprehension of course material will be assessed through:

- (a) performance on 4 exams (worth 15% each , 60% total)
- (b) graded in-class assignments (worth 10%)
- (c) online CourseSpaces quizzes that test concepts covered in class and in the CoursePack (worth 10%)
- (d) In-class participation via iClicker (worth 5%)
- (e) Homework (Traditional & SPSS/R) (worth 15%)

GRADING (% of total marks)

Effective May 1, 2014, the letter grading system previously used at UVic was discontinued. Your final grade will be a straight percentage. Your final grade will be rounded at the 0.5% level (e.g., 84.50 will be rounded to 85; 84.49 will be rounded to 84.00)

*A minimum grade of fifty-percent (50%) is required to continue on to Ψ300B. Rounding is at the first decimal place.

NOTE: All deadlines & grades submitted for exams & class exercises are final. There are **no** make-up assignments, **no** make-up exams, **no** bonus or extra assignments that you can do *post hoc* to alter your grades. The time to invest in achieving the best possible grade is during the course, not afterward.

EXAMS: There are a total of four exams, each worth 15%. Exams will be written on Fridays, and will be 45 minutes each. All grades will be posted on CourseSpaces following each exam. It is your responsibility to check this posting to be sure the grade is correct.

Dates of Exams: Exam 1: May 20 (Friday)   Exam 2: June 3 (Friday)
Exam 3: June 17* (Friday)   Exam 4: June 24 (Friday)

Exam Format: Short answer and computational with emphasis on conceptual mastery of statistical material. Each exam will cover material from the text, class lectures, class exercises and relevant homework assignments. *The exam on June 17 will only cover lecture material until June 10

Policy on missed exams: (Please read as this is important!)

Exams: You are responsible for attending exams as scheduled. <mark>NO make-up exams will be given</mark>. If you miss an exam due to illness, accident, or family affliction, you must send me an email as soon as possible indicating that you have missed the exam, and the reason for it. You must then supply written support for your absence (e.g., doctor's note) within 10 days of missing the exam.

*In the case of illness, documentation should be dated **on the day of the missed exam**, or earlier indicating that you are likely ill for a couple of days, including the date of the exam. If you are too sick to attend the midterm, then you should see a doctor that day! Except in extreme circumstances (e.g., life-threatening illness) **Medical Documentation dated after the exam date WILL NOT BE ACCEPTED.***

If your documentation is accepted for the missing midterm, then a grade for that midterm will be generated by weighting your grades from the remaining exams. **Students who miss two exams will receive a grade of "N" in the course** as they will be deemed to have missed too much of the course material to have met course completion requirements.

Final Exam: 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. Any student who does not take the final exam will receive an "N" in this course. The final, unlike the other three exams, will not be extrapolated and MUST be taken.

APPLICATION OF COURSE MATERIAL

Homework: You will be given 7-8 graded homework assignments worth approximately 10% over the term which will provide you with opportunities to test your mastery of the material. There is simply NO substitute for wrestling a statistics problem to the ground yourself in order to understand the material. You will be required to enter your answers to the homework questions on CourseSpaces. Once you have entered your answers, answer keys will be provided. The lowest homework grade will be dropped.

SPSS/R Assignments: In addition to the graded homework, you will be assigned SPSS and/or R homework that will allow you hands on experience using SPSS/R to analyze data using concepts recently covered in class. These assignments will be worth up to 5% of your final grade. To receive credit for your assignments, you must enter your answers from the assignment into CourseSpaces, and upload an output to CourseSpaces. The best 3 out of 4 assignments will count towards your final grade.

Class Exercises: To further facilitate your integration of the course material, you participate in GRADED class exercises. You will be assigned to groups with 5-6 members, and you will work together to complete these exercises over the term. Each group member is expected to contribute equally to the final product. If a person has concerns regarding the contribution of one or more members of the group she or he should speak to Dr. Medler; it is possible to request re-assignment to a different group. **You are expected to be prepared for the class exercises**. Each assigned exercise is worth equal points. Your worst exercise will automatically be dropped when computing the contribution of exercises to your final grade.
> *Note: If you miss a class exercise, there are **NO** "make-up" exercises, nor are there opportunities to complete an exercise on your own for a grade.*

iClicker Responses: In order to assess concept attainment in class, iClickers will be used during the lectures. You will be graded on your correct responses. Marks for iClickers per day will be 0 (no responses); 0.25 (50% or less of the questions answered correctly) or 0.5 (more than 50% answered correctly). iClicker responses will be assessed for marks on 12 days (see schedule), and the best 10 out of 12 days will count towards your final mark.

MISSED A CLASS?

Get notes from a classmate; lectures typically cover some, but not all, of the material in the CoursePack. All material distributed in class (e.g., homework assignments, class exercises) is also available on CourseSpaces.

STUDY GROUPS?

Working together in groups of 2 to 4 people on a regular basis (not just the day before the exam!) is helpful for some people. It is perfectly acceptable for a study group to come for assistance "en masse" during pre-arranged office hours.

COMPUTER SOFTWARE PROGRAM FOR STATISTICAL ANALYSIS

Some homework assignments require the use of computers. We will use SPSS (version 23.0) and/or R as the software program for statistical analysis. SPSS can be used with either a MAC or a PC. Work stations are available in the Computer labs in the B&E Building (basement), in Clearihue A105 and in the Human and Social Development building (basement). Additional support services for SPSS are available through the HELP menu function of the program. It is essential that you gain some level of familiarity and comfort in using this computer software in 300A.

GENERAL STATEMENT OF BEHAVIOURAL EXPECTATIONS

The University of Victoria is committed to promoting, providing & protecting a positive, supportive, and safe learning and working environment for all its members and so am I.
If you have any concerns regarding the requirements or activities that are intrinsic to Psyc 300A, please see me in the first week of the academic term.

TENTATIVE SCHEDULE: PSYC 300A (A01)

Refer to the relevant Class Prep handout, and the CourseSpaces site, for updated information

WEEK	DATE		CHAPTER / LECTURE TOPIC
			PART 1 – UNIVARIATE DESCRIPTION
1	May 9	(Mon)	Review Syllabus / Intro / Lecture 1: Scales of Measurement; Variables
	May 11*	(Wed)	Lecture 2: Frequency Distributions; Lecture 3: Central Tendency
	May 13*	(Fri)	Class Exercise #1
2	May 16*	(Mon)	Lecture 3: Measures of CT cont…; Lecture 4: Measures of Variability
	May 18	(Wed)	To Computer Lab (BEC 160/170) for Computer Instruction and Exercise #2
	May 20	(Fri)	**Exam #1 over Lectures 1 - 4**
			PART 2 – BIVARIATE DESCRIPTION
3	May 23	(Mon)	***No Class - Victoria Day***
	May 25*	(Wed)	Lecture 5: Correlation
	May 27*	(Fri)	Lecture 5: Correlation Continued…
4	May 30*	(Mon)	Lecture 6: Regression and Defining the Regression Line
	June 1	(Wed)	Lecture 6: Error in Prediction & Partitioning Variability; Exercise #3
	June 3	(Fri)	**Exam #2 over Lectures 5 and 6**
			PART 3 – PROBABILITY AND INFERENTIAL ANALYSIS
5	June 6*	(Mon)	Lecture 7: The Normal Distribution and Probability
	June 8*	(Wed)	Lecture 8/9: Distributions and Hypothesis Testing
	June 10	(Fri)	Exercise #4
			PART 4 – INFERENTIAL ANALYSIS WHEN ESTIMATING POPULATION PARAMETERS
6	June 13*	(Mon)	Lecture 10: Sampling Distribution of the Mean
	June 15*	(Wed)	Lecture 11: Hypothesis Testing (HT); Exercise #5
	June 17	(Fri)	**Exam #3 over Lectures 7 - 9**
7	June 20*	(Mon)	Lecture 12: Theoretical Sampling Distributions
	June 22*	(Wed)	Lecture 12: Single Sample t-test; Exercise #6
	June 24	(Fri)	**Exam #4 over Lectures 10 - 12**

*iClicker responses will be assessed for marks on these days.

ATTENDING CLASSES

In accordance with the Academic Calendar, attendance at and participation in all class sessions is assumed and expected.

NOTE **: The following are NOT acceptable excuses for missing the scheduled midterm exams, class exercises, or any other graded assignments:**
   a) **holiday trips,**
   b) **attendance at a wedding,**
   c) **taking more than the recommended course load,**
   d) **basically any ongoing life circumstance.**
Acceptable excuses are for verifiable, documented, and incapacitating surprises

UNIVERSITY OF VICTORIA
Department of Psychology

Important Course Policy Information
Summer 2016

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 378-382 of the UVic Calendar 2015-2016.

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, 2015-16, p. 59)*

- *What to do if you miss the final exam scheduled on the last day of classes*

Apply at Records Services for a "Request for Academic Concession", normally within 10 working days of the date of the exam. 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 miss an exam other than one scheduled on the last day of classes*

Do <u>not</u> 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 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 course. 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/calendar2016-01/undergrad/info/regulations/academic-integrity.html , p. 54-57, UVic Calendar 2015-16). 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. 54-57 in 2015-2016).

The definitive source for information on Academic Integrity is the University Calendar (p. 54-57 in 2015-2016) (http://web.uvic.ca/calendar2016-01/undergrad/info/regulations/academic-integrity.html)
Other useful resources on Plagiarism and Cheating include:
1. The Study Solutions Office: https://www.uvic.ca/services/counselling/success/study/index.php
2. The Ombudsperson's office: http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf
3. The English Department: http://web.uvic.ca/wguide/Pages/CitPlagiarism.html