PSYCHOLOGY 300A – Section A01
Statistical Methods in Psychology I
Summer (May - June) 2019

Time: MW 12:30 pm – 2:20 pm; F 12:30 – 1:20
Room: Clearihue Building A127

Instructor: David Medler
Office: COR A277
Office Hours: By Appointment
Phone: 250-721-6108 (email is preferable)
Email: dmedler@uvic.ca

Teaching Assistant: Myles Maillet
Office: COR B308
Office Hours: By Appointment
Phone: (email is preferable)
Email: maillet1@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 available in electronic version on the CourseSpaces site. Previous editions can be used, but some information has changed.


PREREQUISITES and REGISTRATION
The prerequisites for Ψ300A include:
1. PSYC 201 and the Academic Writing Requirement (AWR) fulfilled.
2. The completion of Math 12 (Pre-Calculus) or its equivalent (e.g, MATH 120 at UVic), or the completion of MATH 151 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 19, 2019). 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
All course material, including detailed lecture notes, is available through CourseSpaces, which you can access by logging in through coursespaces.uvic.ca. 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 (two worth 20% each, 2 worth 15%, for 70% total)
(b) graded in-class assignments (worth 10%)
(c) online CourseSpaces quizzes (worth 10%)
(d) In-class participation via iClicker (worth 5%)
(e) Homework (worth 5%)

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.

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, two are worth 20% each, and two are worth 15% each. Exams will be written either on Mondays (60 Minutes) or on Fridays (45 minutes). 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 27 (Monday)
- Exam 2: June 7 (Friday)
- Exam 3: June 17 (Monday)
- Exam 4: June 28 (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.

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

Exams: You are responsible for attending exams as scheduled. NO make-up exams will be given. 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 within two days 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 more than two days after the exam date WILL NOT BE ACCEPTED. Your note must indicate that you are ill and unable to write the midterm. Notes indicating that you were examined that day without indication of illness 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 (Friday, June 28) 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.

Link for RAC – https://www.uvic.ca/registrar/students/policies/appeals/rac-request.php
APPLICATION OF COURSE MATERIAL

**Homework:** You will be given 12 graded homework assignments worth a total of 5% of your final grade. The homework will provide you with opportunities to test your mastery of the material as well as to introduce you to *R*. 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 two homework grades will be dropped.

**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. Each correct iClicker response will be worth 0.1% of your total grade, to a maximum of 5%. It is expected that there will be approximately 60+ iClicker questions distributed throughout the term, which means that you should bring your iClicker to every class. As only the top 50 iClicker points count towards your final mark, there are no make-up questions, etc.

**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 (**R**)**

Some homework assignments require the use of computers. We will be using *R* for this class; please bear with me this term as I am adopting *R* in this class for the first time — there will likely be some bumps along the way. The majority of our computerized data analysis, however, will be conducted through a dedicated website for PSYC 300A which can be accessed via a standard web browser. 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 activities that are intrinsic to Psyc 300A, please see me in the first week of the term.

**Respect for Diversity:** It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socio-economic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.
# TENTATIVE SCHEDULE: PSYC 300A (A01)

Refer to the CourseSpaces site for updated information.

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>CHAPTER / LECTURE TOPIC</th>
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<tbody>
<tr>
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<td></td>
<td><strong>PART 1 – UNIVARIATE DESCRIPTION</strong></td>
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<td><strong>PART 2 – BIVARIATE DESCRIPTION</strong></td>
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<td><strong>PART 3 – PROBABILITY AND INFERENTIAL ANALYSIS</strong></td>
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<td><strong>PART 4 – INFERENTIAL ANALYSIS WHEN ESTIMATING POPULATION PARAMETERS</strong></td>
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<td><strong>ATTENDING CLASSES</strong></td>
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<tr>
<td>1</td>
<td>May 13 (Mon)</td>
<td>Review Syllabus / Intro / Lecture 1: Scales of Measurement; Variables</td>
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<td>May 15 (Wed)</td>
<td>Lecture 2: Frequency Distributions; Lecture 3: Central Tendency</td>
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<td>May 17 (Fri)</td>
<td>Class Exercise #1</td>
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<td>2</td>
<td>May 20 (Mon)</td>
<td><em>No Class - Victoria Day</em></td>
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<td>May 22 (Wed)</td>
<td>Lecture 3: Measures of Central Tendency; Lecture 4: Variability</td>
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<td>May 24 (Fri)</td>
<td>Lecture 4: Variability</td>
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<td>3</td>
<td>May 27 (Mon)</td>
<td>Exam #1 over Lectures 1 - 4 (60 minutes); Lecture 5: Correlation</td>
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<td>May 29 (Wed)</td>
<td>Lecture 5: Correlation</td>
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<td>May 31 (Fri)</td>
<td>Class Exercise #2</td>
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<td>4</td>
<td>June 3 (Mon)</td>
<td>Lecture 6: Regression and Defining the Regression Line</td>
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<td>June 5 (Wed)</td>
<td>Lecture 6: Error in Prediction &amp; Partitioning Variability; Class Exercise #3</td>
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<td>June 7 (Fri)</td>
<td>Exam #2 over Lectures 5 and 6 (45 minutes)</td>
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<td>5</td>
<td>June 10 (Mon)</td>
<td>Lecture 7: The Normal Distribution and Probability</td>
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<td>June 12 (Wed)</td>
<td>Lecture 8/9: Distributions and Hypothesis Testing</td>
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<td>June 14 (Fri)</td>
<td>Class Exercise #4</td>
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<td>June 17 (Mon)</td>
<td>Exam #3 over Lectures 7 - 9 (60 minutes); Lecture 10: Sampling Dist.</td>
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<td>June 19 (Wed)</td>
<td>Lecture 11: Hypothesis Testing (HT);</td>
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<td>June 21 (Fri)</td>
<td>Class Exercise #5</td>
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<td>7</td>
<td>June 24 (Mon)</td>
<td>Lecture 12: Theoretical Sampling Distributions</td>
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<td>June 26 (Wed)</td>
<td>Lecture 12: Single Sample $t$-test; Exercise #6</td>
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<td>June 28 (Fri)</td>
<td>Exam #4 over Lectures 10 - 12 (45 minutes)</td>
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**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:

- holiday trips,
- attendance at a wedding,
- taking more than the recommended course load,
- basically any ongoing life circumstance.

Acceptable excuses are for verifiable, documented, and incapacitating surprises.
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 311-314 of the UVic Calendar May 2019.

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, May 2019, p. 49-51)

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

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 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 (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
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 https://web.uvic.ca/calendar2019-05/undergrad/info/regulations/academic-integrity.html, p.45-47, UVic Calendar May 2019). 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. **Unauthorized Use of an Editor.** The use of an editor is prohibited unless the instructor grants explicit written authorization.

3. **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.

4. **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.

5. **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.

6. **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. 46 in May 2019).

The definitive source for information on Academic Integrity is the University Calendar (p. 45-47 in May 2019) (https://web.uvic.ca/calendar2019-05/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: https://uvicombudsperson.ca/tips/plagiarism/
3. UVic Library Resources: http://www.uvic.ca/library/research/citation/plagiarism/
A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

**Social Life, Friends, & Community at UVic:**
Having a social network is an extremely important foundation for positive mental health. There are lots of benefits to joining clubs, course unions, intramurals and teams on campus.
https://www.uvic.ca/mentalhealth/undergraduate/connecting/index.php

**Counselling Services:**
Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. www.uvic.ca/services/counselling/

**Health Services:**
University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.
www.uvic.ca/services/health/

**Centre for Accessible Learning:**
The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations www.uvic.ca/services/cal/. The sooner you let us know your needs, the quicker we can assist you in achieving your learning goals in this course.

**Elders' Voices:**
The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.
www.uvic.ca/services/indigenous/students/programming/elders/

**Mental Health Supports and Services:**
mMental health supports and services are available to students from all areas of the UVic community: www.uvic.ca/mentalhealth/undergraduate/
Sexualized Violence Prevention and Response at UVic

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:

Where: Sexualized violence resource office in EQHR, Sedgewick C119

Phone: 250.721.8021

Email: svpcoordinator@uvic.ca

Web: www.uvic.ca/svp