

PSYC 300A – Summer 2021

Statistical Methods in Psychology I

Dates: May 10th – June 25th, 2021

Time: Monday & Wednesday (12:30-14:20), Friday (12:30-13:20)

Labs: Thursday 10:30-11:20 (B01), Thursday 11:30-12:20 (B02)

Room: Online via Zoom Conferencing

Instructor: Nathan Lewis

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Office: B335g Cornett Building

Office Hours: By appointment

Teaching Assistant: Myles Maillet

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Course Description:

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

Zoom Video Conferencing

Please log into the Zoom Video Conferencing site for PSYC 300A through the Brightspace site under General Course Resources. This will ensure that you are properly represented in the session. If you are in a waiting room, you need to exit and log in again through the UVic system.

<https://www.uvic.ca/systems/support/avmultimedia/zoomvideoconferencing/resources.php>

Please do not share Zoom login information with anyone not registered in PSYC 300A.

Text

There is no required textbook for this course. All course content will be delivered through lectures, assignments, and discussion of course concepts. If you are interested in having a supplemental text as a guide, I recommend the following **OPTIONAL** texts:

Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the behavioral sciences* (10th ed.). Thomson Wadsworth.

Field, A., Miles, J., & Field, Z. (2012). *Discovering Statistics Using R*. Thousand Oaks, CA: Sage Publications

Note: These texts are for supplemental reading only. Material from these texts will not be tested.

Prerequisites:

The prerequisites for PSYC 300A 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**.

Course Requirements and Evaluation:

Evaluation	Date	% of Grade
Assignments	Throughout term	25%
In-class zoom polls	Throughout term	10%
Midterm Exam #1	Friday, May 21 st	15%
Midterm Exam #2	Friday June 11 th	15%
Final Exam (Cumulative)	Friday June 25 th	35%

Assignments

There will be a total of five assignments throughout the course, each worth 5% of your total grade. The assignments are designed to give you experience working with real data and become familiar using and interpreting results from R statistical software. Assignments will be posted on Brightspace roughly one week before the due date.

In-Class Polls

Zoom polling will be used during lectures to assess in-class comprehension of the material. Zoom polling questions will be distributed randomly throughout the term.

Exams

There will be two midterm exams, each worth 15%, and one cumulative final exam worth 35%. All exams will be written online and will be timed; to reduce load on the BrightSpace servers, you will be given a window of time in which to start your exam, including the scheduled course time. All grades will be posted on BrightSpace following each exam.

Missed Exams: It is your responsibility to attend midterms as scheduled. If you miss a midterm due to illness, accident, or family affliction, you must send me an email as soon as possible indicating that you have missed the midterm, and the reason for it. For the 2021 summer term, students are not required to provide documentation to support their request for academic concession (e.g. medical notes), but it is appreciated. A make-up midterm will be scheduled to be completed within 7 days of the missed midterm. If the make-up midterm is not completed within that timeframe, a score of 0 will be assigned to the midterm, unless there are exceptional circumstances.

Students who miss two midterms 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. Link for RAC – <https://www.uvic.ca/registrar/students/appeals/acad-concession/index.php>

The final letter grade in the course will be based on total percent score rounded to the third decimal point as shown:

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

Application of Course Material

R Statistical Software

R is a freely available software for statistical analysis. In this course, it is expected that you will gain some familiarity and comfort in interpreting R output and using R for statistical analysis. R studio will be used to organize analytic scripts. R software can be downloaded [here](#), and R studio desktop (free) is available [here](#).

Labs

The weekly labs will be an opportunity for you to become familiar with the mechanics of using R software with the assistance of the TA. The guided activities will overlap considerably with material on the assignments, so attendance of each lab is imperative. You must attend the lab section you are registered in. Section B01: Thursdays at 10:30, B02: Thursdays at 11:30.

Tentative Class Schedule

Wk.	Day	Date	Topic	
1	Mon	May 10	Course Overview; Basics of Measurement	
1	Wed	May 12	Frequency Distributions	
1	Fri	May 14	Central Tendency	
2	Mon	May 17	Central Tendency; Variability	
2	Wed	May 19	Variability	
2	Fri	May 21	Exam #1	
3	Mon	May 24	No Class (Victoria Day)	Assign. 1
3	Wed	May 26	Correlation	
3	Fri	May 28	Correlation	
4	Mon	May 31	Regression	Assign. 2
4	Wed	June 2	Regression	
4	Fri	June 4	Normal Curve	
5	Mon	June 7	Standard Scores	Assign. 3
5	Wed	June 9	Probability and Distributions	
5	Fri	June 11	Exam #2	
6	Mon	June 14	Probability and Distributions	Assign. 4
6	Wed	June 16	Hypothesis Testing	
6	Fri	June 18	Hypothesis Testing	
7	Mon	June 21	Single Sample <i>t</i> -test	Assign. 5
7	Wed	June 23	Single Sample <i>t</i> -test	
7	Fri	June 25	Final Exam	

UNIVERSITY OF VICTORIA
Department of Psychology
Important Course Policy Information
Summer 2021

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 the UVic Calendar May 2021.

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

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

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 formal exam 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 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://www.uvic.ca/calendar/future/undergrad/#/policy/Sk_0xsM_V?bc=true&bcCurrent=08%20-%20Policy%20on%20Academic%20Integrity&bcGroup=Undergraduate%20Academic%20Regulations&bcItemType=policies. 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. **Aiding Others to Cheat.** It is a violation to help others or attempt to help others to engage in any of the conduct described above.

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 May 2021.

The definitive source for information on Academic Integrity is the University Calendar

Other useful resources on Plagiarism and Cheating include:

1. The Ombudsperson's office: <https://uvicombudsperson.ca/tips/plagiarism/>
The [Office of the Ombudsperson](#) is an independent and impartial resource to assist with the fair resolution of student issues. A confidential consultation can help you understand your rights and responsibilities. The Ombudsperson can also clarify information, help navigate procedures, assist with problem-solving, facilitate communication, provide feedback on an appeal, investigate and make recommendations. Phone: 250-721-8357; Email: ombuddy@uvic.ca; Web: uvicombudsperson.ca.

2. UVic Library Resources: <http://www.uvic.ca/library/research/citation/plagiarism/>
3. https://www.uvic.ca/library/research/citation/documents/avoiding%20plagiarism%20guideUpdate_Sept_2013.pdf

BE WELL



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:

Mental 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