PSYC 300B – Summer 2023

Statistical Methods in Psychology II

CRN: 31299 **Dates:** July 5th – August 21st, 2023 **Time:** Monday & Wednesday (10:30-12:20), Friday (10:30-11:20) **Labs:** <u>B111 Cornett Building</u> Thursday 10:30 AM - 11:20 (B01), Thursday 11:30-12:20 (B02) **Room:** <u>A240 Human & Social Development Building</u>

Instructor: Nathan Lewis

Email: <u>nathanlewis@uvic.ca</u>	Office: B335g Cornett Buildi	ng Office Hours: By appointment
Teaching Assistant: Yaewon Kim (labs)	Otis Geddes
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We acknowledge and respect the lak^waŋan peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.

Course Description:

This course will provide a conceptual and practical understanding of descriptive and inferential statistics as applied to psychological research. Building on the skills developed in PSYC 300A, this course will have an emphasis on topics relating to inferential analysis, power, and multiple group comparisons. By the end of this course, you will develop the skills to:

- Read and critically evaluate academic papers and reports;
- Know when to apply the appropriate test statistic to a given research design;
- Interpret and communicate results of statistical analyses in a manner appropriate for psychological research

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 300B include:

1. The completion of Psychology 300A with a minimum grade of 50%.

Course Requirements and Evaluation:

PSYCHOLOGY 300B, SUMMER 2023 – COURSE OUTLINE

Evaluation	Date	% of Grade
Assignments	Throughout term	20%
Post-class quizzes	Throughout term	10%
Lab Participation	Throughout term	10%
Exam #1	Friday, July	10%
Exam #2	Friday, August	15%
Research Report: Proposal	Thursday, July	5%
Research Report: Final Report	Monday, August	15%
Final Exam (Cumulative)	Friday, August	15%

Note that lab participation and completion of the final exam and final report are requirements for this course. *Failure to complete one or more of these elements will result in a grade of "N" regardless of the cumulative percentage of all other elements of the course.* N is a failing grade and factors into GPA as a value of 0.

Assignments

There will be a total of <u>four</u> (4) 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.

Post-Class Quizzes

Quizzes will be posted on Brightspace following each lecture (excluding exams and holidays) to encourage you to review the material and keep up with regular practice. Each quiz will consist of a few questions corresponding to material covered in the lecture and you will have until 5pm the following day to complete the quiz. You will be allowed multiple attempts for each quiz, with the highest grade for the quiz being applied to the final grade.

Research Report Project

This is your chance to experience the exotic, fast-paced world of academic research. You will have the opportunity to create your own study on a topic of your choice (mostly), based on real data (from the easySHARE dataset on Brightspace). Additional details on this project will be provided on Brightspace and discussed in class. NOTE: An original research report is required for successful completion of this course. *If you do not submit the research project paper you will receive an "N" in this course.*

Exams

There will be two midterm exams (one worth 10% and the second worth 15%) and one cumulative final exam worth 15%. All grades will be posted on Brightspace around 1-2 weeks following each exam.

<u>*Missed Exams:*</u> 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 2023 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.

<u>Students who miss two midterms will receive a grade of "N" in the course</u> 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. *In accordance with the University's policy on academic concessions, "A student who completes all course requirements is not eligible for an academic concession". Consequently, students can only request deferrals for the completion of required course components (i.e., final exam and final report) and not for non-essential course components.*

Research Participation or Research Review (Bonus Marks)

You will be given the option to earn up to 2% bonus marks to be applied to the final grade. For the first option, you can participate in research studies as a participant in Department of Psychology for the equivalent of 2 hours of participation, or 2 SONA credits, and complete a brief report about your experience as a participant and the aims of the study (i.e., "How does this relate to PSYC 300?"). Or, you can review published research on a specific topic and complete a brief analysis and report. The purpose of the research participation/review is to provide you with experience applying what you have learned in the course to real research. The Research Participation/Research Review contributes a maximum of 2% bonus towards your grade, and more details for both options will be posted on the course webpage.

Grading

Your final grade will be a percentage and will be rounded to the nearest whole number (no APA-style reporting here). Rounding will only occur for the final grade.

Any student who does not take the final exam will receive an "*N*" in this course. Link for RAC – <u>https://www.uvic.ca/registrar/students/appeals/acad-concession/index.php</u>

The final letter grade in the course will be based on total percent score 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 <u>here</u>, and R studio desktop (free) is available <u>here</u>.

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. Please note, *Labs are mandatory, and you must attend them in real time*. You must attend at least 50% of the labs or you will receive an "N", in the course. You must attend the lab section you are registered in.

B01: Thursdays at 10:30-11:20

B02: Thursdays at 11:30-12:20

Study Groups

Working together in groups of 2 to 4 people on a regular basis (<u>not just the day before the exam</u>) is helpful for some people. If you find this helpful I highly encourage you to seek out other interested students (the Brightspace discussion forum or labs could be a good place to arrange this). Also, I welcome study groups to come see me in pre-arranged office hours.

Important Dates

Jul 11 – Deadline to drop the course for 100% fee reduction.

Jul 12 – Deadline to add the course.

Jul 22 - 50% fee reduction drop deadline.

Aug 5 – Last day to drop the course, no fee reduction.

Tentative Class Schedule

Wk.	Day	Date	Торіс	Assignments
1	Wed	July 5	Course intro; Variables and Measurement	
1	Fri	July 7	Hypothesis testing refresher	
2	Mon	July 10	t-test for Related Samples Design	
2	Wed	July 12	t-test for Independent Samples Design	Assign. 1
2	Fri	July 14	t-test for Independent Samples Design	
3	Mon	July 17	Exam #1	
3	Wed	July 19	Power	
3	Thur	July 22	Interactive Lab Day: "Selecting the appropriate	Proposal
			analyses"	Due
3	Fri	July 21	Multigroup Design (ANOVA)	
4	Mon	July 24	Multigroup Design (ANOVA)	Assign. 2
4	Wed	July 26	Multigroup Design (ANOVA); Regression	
4	Fri	July 28	Regression	
5	Mon	July 31	Multiple Comparisons	Assign. 3
5	Wed	August 2	Multiple Comparisons	
5	Fri	August 4	Exam #2	
6	Mon	August 7	BC Day – No Class	
6	Wed	August 9	Factorial Designs (ANOVA)	Assign. 4
6	Fri	August 11	Factorial Designs (ANOVA)	
7	Mon	August 13	Interactions in Factorial Designs	
7	Wed	August 16	Interactions in Factorial Designs; Non-Parametric	Report Due
			Tests	
7	Fri	August 18	Review	
8	Mon	August 20	Final Exam	

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 <u>www.uvic.ca/svp</u>. 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: <u>www.uvic.ca/svp</u>

UNIVERSITY OF VICTORIA

Department of Psychology Important Course Policy Information Summer Session 2023

Accessible Learning

The University of Victoria is committed to creating a learning experience that is as accessible as possible. If you anticipate or experience any barriers to learning in this course, please feel welcome to discuss your concerns with me. If you have a disability or chronic health condition, or think you may have a disability, you may also want to meet with an advisor at the <u>Centre for Accessible Learning</u> (CAL).

Attendance and Absences

<u>Attendance is important</u>. Students are expected to attend all classes in which they are enrolled. Students may be assigned a final grade of N or debarred from writing final examinations if they fail to satisfy a minimum attendance requirement set by the instructor for lectures, laboratories, online course discussions or learning activities, tutorials, or other learning activities set out in the course outline.

Medical documentation for short-term absences is **not required** (approved by Senate). Students who cannot attend due to illness are asked to notify their instructors immediately. If illness, accident, or family affliction causes a student to miss the final exam or to fail to complete any required assignment/assessment by the end of the term students are required to submit a request for academic concession (see below).

Children and Pets

If you need to bring your children or pet to class, please do not hesitate to do so. It is understood that sometimes this is necessary due to care circumstances. However, please aim to have minimal class disturbance so that student learning is not impacted.

Class Recording and Auto-Captioning Statement

The instructor may record class sessions and those recordings may be made available to all students in the class via Brightspace. If you have questions or concerns regarding class recording and privacy please contact privacyinfo@uvic.ca

Auto-generated captioning may be enabled in this course. Auto-captioning is highly error-prone, especially for specialized terminology and proper names. Students are asked to refer to the audio feed for clarification of any errors. If you find captioning errors that are offensive, please contact your instructor and/or teaching assistant so that they are aware. If you require captions as part of an academic accommodation, please contact <u>CAL</u>.

Commitment to Inclusivity, Diversity, and Respectful Environments in the Classroom and Online

The University of Victoria is committed to providing a positive and supportive and safe learning and working environment for all its members. All members of the university community have the right to this experience and the responsibility to help *create* such an environment. The University will not tolerate racism, sexualized violence, or any form of discrimination, bullying, or harassment.

Please be advised that, by logging into UVic's learning systems or interacting with online resources and courserelated communication platforms, you are engaging in a University activity.

All interactions within this environment are subject to the university expectations and policies. Any concerns about student conduct may be reviewed and responded to in accordance with the appropriate university policy.

To report concerns about online student conduct: onlineconduct@uvic.ca

Copyright

All course content and materials are made available by instructors for educational purposes and for the exclusive use of students registered in their class¹. The material is protected under copyright law, even if not marked with ©. Any further use or distribution of materials to others requires the written permission of the instructor, except under fair dealing or another exception in the Copyright Act. Violations may result in disciplinary action under the **Resolution of Non-Academic Misconduct Allegations policy (AC1300)** or the **Academic Integrity Policy**, whichever is more appropriate for the situation.

Course Experience Survey (CES)

I value your feedback on this course. Toward the end of term, you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to the instructor regarding the course and their teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to http://ces.uvic.ca. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. You will be reminded nearer the time, but please be thinking about this important activity, especially the following three questions, during the course.

- 1. What strengths did your instructor demonstrate that helped you learn in this course?
- 2. Please provide specific suggestions as to how the instructor could have helped you learn more effectively.
- 3. Please provide specific suggestions as to how this course could be improved.

Disclaimer

The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances.

Grading

In classes that are based on a percentage grading scheme, the following Undergraduate Grading Scale is used

Grade	A+	А	A-	B+	В	B-	C+	С	D	F
Percentage	90-100	85-89	80-84	77-79	73-76	70-72	65-69	60-64	51-59	< 50
GP Value	9	8	7	6	5	4	3	2	1	0

Rounding is only applied to the final grade and is rounded up at the 0.5% level (e.g., 84.49% is round to 84% and 84.50% is rounded to 85%).

Medical Documentation for absences

No medical documentation for short-term absences is required (Approved by Senate).

If you are seeking a Withdrawal Extenuating Circumstances or an Aegrotat grade, medical documentation may be required if relevant.

Ombudsperson and Academic Concerns

From the course calendar...

Depending on the nature of the academic matter of concern to the student, the order in which the student should normally try to resolve the matter is: first, the course instructor; second, the Chair of the department; third, the Dean of the faculty; and finally, the Senate.

If you are having an academic concern or problem that cannot be resolved with your instructor or the Department Associate Chair, you may wish to consult with the Office of the Ombudsperson (<u>https://uvicombudsperson.ca</u>). Current contact information for the office can be found here <u>https://uvicombudsperson.ca/contact/</u>.

¹ Syllabi belong to the department through which the course is administered.

Policy on Academic Integrity including Plagiarism and Cheating

The Department of Psychology fully endorses and intends to enforce rigorously the <u>Senate Policy on Academic</u> <u>Integrity</u>. 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.
- 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.

The use of a generative artificial intelligence (AI) is strictly prohibited in any submitted work (unless expressly endorsed by the instructor as part of an assignment). The Department reserves the right to use AI detectors.

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 Summer 2023.

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

Other useful resources on Plagiarism and Cheating include:

- The Ombudsperson's office: <u>https://uvicombudsperson.ca/academic-integrity/</u> The <u>Office of the Ombudsperson</u> 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: <u>ombuddy@uvic.ca</u>; Web: <u>uvicombudsperson.ca</u>.
- 2. UVic Library Resources: http://www.uvic.ca/library/research/citation/plagiarism/
- 3. UVic Library Document on Avoiding Plagiarism

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.

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 <u>deadlines</u> set out in the current UVic Calendar.

Students who do not attend classes must not assume that they have been dropped from a course by an academic unit or an instructor. Courses that are not formally dropped will be given a failing grade, students may be required to withdraw and will be required to pay the tuition fee for the course.

Request for Academic Concessions: In the Event of Illness, Accident or Family Affliction

Request for Academic Concession form: http://www.uvic.ca/registrar/assets/docs/record-forms/rac.pdf

• 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.

- What to do if you miss an exam other than one scheduled during the formal exam period Do <u>not</u> apply at Records Services for a "Request for Academic Concession". Instead, contact your course instructor (or designated teaching assistant) to let them know why you missed the exam. Medical documentation is not required.
- 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 if the missing work has been deemed required. Note, only required course components may be deferred.

Research Participation Opportunities with the Department of Psychology

The Department of Psychology offers multiple opportunities to participate in research studies over the year. Students are encouraged to learn more about the field of psychology by volunteering in these studies. Information about studies can often be found posted on notice boards around the Department as well as through our Participant Pool webpage at <u>https://www.uvic.ca/socialsciences/psychology/research/participants/</u>.

Student Support Services

<u>Learn Anywhere</u> is the student support portal for a full range of student academic and support services. Services include: <u>Centre for Academic Communication</u>, <u>Math & Stats Assistance Centre</u>, <u>Counselling Services</u>, <u>Health</u> <u>Services</u>, <u>Library</u>, <u>Ombudsperson</u>, and <u>Computer Help Desk</u>

This classroom is a trans-inclusive space

Please indicate if you have a preferred name and pronoun that you'd like to be used in the classroom. Please email your instructor or your TA if you would like to discuss the climate of this classroom for trans students. Gender neutral bathrooms are available at UVic.

University of Victoria Students' Society (UVSS)

The <u>UVSS</u> is a social justice based non-profit run by students, for students and is entirely separate from UVic. As an undergrad student, you are already a member! We work on issues affecting students such as affordability, public transit, sexualized violence, sustainability, student employment, and much more. We fund clubs and course unions, and have several advocacy groups. We also have a Food Bank and Free Store, a Peer Support Centre, and run your health and dental plan. We are here to support you, so please reach out to us at uvss.ca!

Academic Important Dates

Summer session

Monday, May 15 th	May and May-June courses begin
Monday, May 22 nd	University closed (Victoria Day)
Wednesday, May 31 st	Fees deadlines for summer
Wednesday, June 7 th	May courses end
Thursday, June 8 th	June courses begin
Friday, June 30 th	May-June and June courses end
Monday, July 3 rd	University closed (Canada Day, July 1 st)
Wednesday, July 5 th	July and July-August courses begin
Saturday, July 15 th	Deadline to apply to graduate for Fall Convocation
Thursday, July 27 th	July courses end
Friday, July 28 th	August courses begin
Monday, August 7 th	University closed (British Columbia Day)
Monday, August 21 st	July-August and August courses end

Add and drop dates for standard 2023 Summer Session courses

Term	Start Date	End Date	100% Fee Reduction	Add Deadline	50% Fee Reduction	Academic Drop no Fee Reduction
2	May 15	Jun 30	May 21	May 22	Jun 1	Jun 14
3	Jul 5	Aug 21	Jul 11	Jul 12	Jul 22	Aug 5
4	May 15	Jun 7	May 18	May 18	May 23	May 30
5	Jun 8	Jun 30	Jun 10	Jun 10	Jun 16	Jun 22
6	Jul 5	July 27	Jul 7	Jul 7	Jul 13	Jul 19
7	Jul 28	Aug 21	Jul 31	Jul 31	Aug 6	Aug 13

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/undergraduate/housing-student-life/student-life/index.php

Counselling Services:

The Student Wellness Centre can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students. <u>https://www.uvic.ca/student-wellness/contacts/student-wellness-</u> team/index.php#ipn-counsellors

Health Services:

The Student Wellness Centre also provides a full service primary health clinic for students. <u>https://www.uvic.ca/student-wellness/contacts/student-wellness-team/index.php#ipn-physicians</u>

Centre for Accessible Learning:

The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <u>www.uvic.ca/services/cal/</u>. 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: <u>https://www.uvic.ca/student-wellness/wellness-resources/mental-health/</u>