



PSYCHOLOGY 300B – Section A01

Statistical Methods in Psychology II

Spring (Jan. - Apr.) 2022 : CRN 22683

Time: MWTh 2:30 pm – 3:20 pm	Room: Bob Wright Centre (BWC) B150*
Instructor: David Medler Email: dmedler@uvic.ca Office: COR A270 Office Hours: Tuesday 1:00 - 2:00 Friday 11:00 - 12:00	Teaching Assistant: Josh Palmer; COR B327 Email: jmpalmer@uvic.ca Teaching Assistant: Michaela Trites; COR B329 Email: mtrites@uvic.ca Office Hours: By Appointment

TERRITORIAL ACKNOWLEDGEMENT

We acknowledge and respect the ɫəkʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNEC peoples whose historical relationships with the land continue to this day.

*THE FIRST TWO WEEKS (JANUARY 10 - JANUARY 21) OF CLASSES WILL BE ONLINE

The first two weeks of classes are scheduled to be delivered online synchronously through Zoom. We are expecting to be back to face-to-face instruction starting Monday, January 24. See page 2 for Zoom details.

COURSE DESCRIPTION AND OBJECTIVES

1. To gain conceptual understanding of statistical analyses to advanced research designs.
2. To gain practical experience in the interpretation and communication of statistical analysis in a manner appropriate for those involved in psychological research.

PREREQUISITES AND REGISTRATION

The prerequisite for Ψ300B is simply:

1. The completion of Psychology 300A with a minimum grade of 50%. This is non-negotiable.

TOPICS COVERED

Measurement (independent & dependent variables); Power; Inferential analysis for research designs under the Random Sampling Model of Hypothesis Testing. Research designs include related-samples, bivariate correlation, independent samples for $k = 2$, $k > 2$ (Analysis of Variance — ANOVA), & multi-factorial ANOVA. Other topics include multiple comparisons, options for analyzing data when assumptions are violated, and analysis of frequency data (Chi-Square).

COURSE FORMAT

Course material will be presented in 3 discrete sections through text readings, lectures, graded labs, graded homework assignments, and a course research project. Answer keys for labs and homework will be available through Brightspace. *It is assumed that you have read the relevant course material prior to each lecture.*

REQUIRED TEXTBOOK

There is no required textbook for this class. I will make all slides available prior to lectures. Over the years, I have found that students do just as well from studying from the lecture slides as they do from additional notes.

IMPORTANT UVIC DATES

Date	Event
Jan. 23, 2022	Last day for 100% reduction of tuition fees for second term courses
Jan. 26, 2022	Last day for adding courses that begin in the second term
Feb. 13, 2022	Last day for 50% reduction of tuition fees for standard courses
Feb. 28, 2022	Last day for withdrawing from second term courses without penalty of failure

ZOOM VIDEO CONFERENCING INFORMATION

Please log into the Zoom Video Conferencing site for PSYC 300B (A01) 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 will need to exit and log in again through the UVic system. Due to previous issues last term, *students will not be admitted into the Zoom session through the waiting room.*
<https://www.uvic.ca/systems/support/avmultimedia/zoomvideoconferencing/resources.php>

In case you need it, the general information for the Zoom session is as follows:

Meeting ID: 987 5567 7594

Password: 714628

Please do not share this information with anyone not registered in PSYC 300B (A01).

BRIGHTSPACE

All course material, including detailed lecture notes, is available through Brightspace, which you can access by logging in through MyPage or directly through bright.uvic.ca. This site will have all course lecture material with the accompanying overheads that are presented in class, as well as the recorded lectures. It will also have blank copies of homework assignments and their respective answer keys. Most files are in pdf format.

COURSE EVALUATION

Comprehension of course material will be assessed through performance on...

- (a) 2 midterm exams (each worth 15% of your final grade),
- (b) a cumulative final exam (30%),
- (c) a research report (15%),
- (d) labs (10%),
- (e) online quizzes (10%), &
- (f) Graded Homework Assignments (5%)
- (g) Up to 3% bonus for in-Class Questions and bonus survey.

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). Rounding will only occur for the final grade.

NOTE: All deadlines & grades submitted for exams & various assignments 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.

APPLICATION OF COURSE MATERIAL

Online Quizzes: There will be a total of 12 quizzes on Brightspace to be completed outside class time. These quizzes are worth 10% of your final grade with the bottom two marks being dropped. Quizzes are untimed, and you can attempt each quiz up to five times while they are open, with your final grade for any quiz being the average of all of your attempts for that quiz.

Homework Assignments: You will be given up to 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. 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 Brightspace. Answer keys will be provided once the homework has been closed. The lowest two homework grade will be dropped.

Labs: To further facilitate your integration of the course material, you will participate in GRADED lab exercises worth 10% of your final grade. Further information is provided in the Lab Document provided on Brightspace. Please note, **Labs are mandatory, and you must attend them.** You must attend at least 50% of the labs, and receive a passing grade (minimum 50% average) on the labs, or you will receive an “N”, in the course. As we drop the lowest lab grades, there are no make-up labs, etc.

In-Class Participation: In order to assess concept attainment in class, Zoom Polling and iClickers will be used during the lectures. You will be graded on your correct responses, but these grades will be considered bonus marks. Each correct response will be worth 0.1% of your total grade, to a maximum of 2%. It is expected that there will be approximately 40+ questions distributed throughout the term.

Research Project Report: An original research report is REQUIRED for successful completion of this course. This term you will have the opportunity to create your own study following the guidelines on BrightSpace, “Research project”. You will be provided with a data set unique to your study.

If you do not turn in the research project paper you will receive an “N” in this course.

EXAMS: There are a total of two midterms exams, each worth 15%, and one cumulative Final Exam worth 30%. 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. It is your responsibility to check this posting to ensure the grade is correct. The final exam will be scheduled during the December formal exam period.

Dates of Exams: Exam 1: February 7 (Monday) Exam 2: March 14 (Monday)
Final Exam: T.B.A.

Exam Format: Short answer and computational with emphasis on conceptual mastery of statistical material. Each exam will cover material from the text, class lectures, labs and relevant homework assignments.

POLICY ON MISSED EXAMS: (Please read as this is important!)

You are responsible for attending midterms and final exams 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 2022 Spring term, students are (tentatively) 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 both 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” (RAC), 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/policies/appeals/rac-request.php>

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 300B, please see me in the first week of the term. Students are encouraged to review the Student Code of Conduct available on the university website.

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.

ACADEMIC INTEGRITY

With the move to the online environment last year, there was a large increase in academic integrity violations, including in PSYC 300A/B. **I have a zero tolerance policy towards academic integrity violations.** I reserve the right to use cheating detection software or other platforms to assess the integrity of student work. **Do not cheat in this class!**

TENTATIVE COURSE SCHEDULE

WEEK	DATE	CHAPTER / LECTURE TOPIC	LAB
PART 1 – Hypothesis Testing with 1- and 2-Sample Designs, Variability Explained			
1	10-Jan Mon	Course Introduction*	No Labs
	12-Jan Wed	Lecture 1: Independent & Dependent Variables*	
	13-Jan Thurs	Lecture 1: Independent & Dependent Variables*	
2	17-Jan Mon	Lecture 2: Hypothesis Testing – Related Sample Design*	Introduction to R*
	19-Jan Wed	Lecture 2: Hypothesis Testing – Related Sample Design*	
	20-Jan Thurs	Lecture 3: Hypothesis Testing – Correlation Design*	
3	24-Jan Mon	Lecture 4: Hypothesis Testing – Independent Samples Design	Descriptive Statistics
	26-Jan Wed	Lecture 4: Hypothesis Testing – Independent Samples Design	
	27-Jan Thurs	Lecture 4: Hypothesis Testing – Independent Samples Design	
4	31-Jan Mon	Lecture 4: Hypothesis Testing – Independent Samples Design	Hypothesis Testing
	02-Feb Wed	Lecture 5: Variability Explained (r^2)	
	03-Feb Thurs	Review/Catch-Up	
5	07-Feb Mon	Exam #1 (Lectures 1 – 5, Labs #1 & #2, Homework)	Research Paper #1
PART 2 – Power and Multigroup Design (ANOVA)			
	09-Feb Wed	Lecture 6: Power	
	10-Feb Thurs	Lecture 6: Power	
6	14-Feb Mon	Lecture 6: Power	Power
	16-Feb Wed	Lecture 7: Hypothesis Testing – Multigroup Design (ANOVA)	
	17-Feb Thurs	Lecture 7: Hypothesis Testing – Multigroup Design (ANOVA)	
7	21-Feb Mon	<i>Reading Break – No Class</i>	No Labs
	23-Feb Wed	<i>Reading Break – No Class</i>	
	24-Feb Thurs	<i>Reading Break – No Class</i>	
8	28-Feb Mon	Lecture 7: Hypothesis Testing – Multigroup Design (ANOVA)	Research Paper #2
	02-Mar Wed	Lecture 7: Hypothesis Testing – Multigroup Design (ANOVA)	
	03-Mar Thurs	Lecture 8: Multiple Comparisons	
9	07-Mar Mon	Lecture 8: Multiple Comparisons	ANOVA
	09-Mar Wed	Lecture 8: Multiple Comparisons	
	10-Mar Thurs	Review/Catch-Up	
10	14-Mar Mon	Exam #2 (Lectures 6 – 8, Class Exercise #3 & #4, Homework)	Multiple Comparisons
PART 3 – Multifactorial Designs and Non-Parametric Tests			
	16-Mar Wed	Lecture 9. Hypothesis Testing: Multi-Factorial Designs	
	17-Mar Thurs	Lecture 9. Hypothesis Testing: Multi-Factorial Designs	
11	21-Mar Mon	Lecture 9. Hypothesis Testing: Multi-Factorial Designs	Research Paper #3
	23-Mar Wed	Lecture 10: Interactions in Factorial Designs	
	24-Mar Thurs	Lecture 10: Interactions in Factorial Designs	
12	28-Mar Mon	Lecture 11: Analysis of Frequency Data	Multi-Factorial
	30-Mar Wed	Lecture 11: Analysis of Frequency Data	
	31-Mar Thurs	Lecture 11: Analysis of Frequency Data	
13	04-Apr Mon	Lecture 12: Options when Assumptions are Violated	Frequency Data
	06-Apr Wed	Lecture 12: Options when Assumptions are Violated	
	07-Apr Thurs	Review/Catch-Up	

*classes and labs will be online via Zoom

STATEMENT OF COPYRIGHT NOTICE

All lecture notes and course materials provided to you including all exams and quizzes are my intellectual property, and are made available to students for instructional purposes only. You do not have my permission to distribute my lecture notes or any exams or quizzes from the course. Such distribution, through note-sharing sites or other means, violates the Policy on Academic Integrity.

UNIVERSITY OF VICTORIA
Department of Psychology

Important Course Policy Information
Winter 2022

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 January 2022.

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 September 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