PSYC 300B – Spring 2020
Statistical Methods in Psychology II

Dates: January 6th – April 2nd, 2020
Class Times: Mondays and Thursdays 11:30am – 12:50pm
Location: Cornett B108
Instructor: Myles A. Maillet
Office Hours: Thursdays 9:30am – 10:30am
Office: Cornett A216
Email: maillet.teach@gmail.com

Course Description:
To provide a conceptual and practical understanding of descriptive and inferential statistical analysis as applied to experimental research in psychology. To maximize learning in this course I believe it is your responsibility to come to class prepared and engaged, and it is my responsibility to provide you with feedback and resources to facilitate your comprehension.

In this course we will focus on measurement, power, and inferential analysis for different research designs under the Random Sampling Model of Hypothesis Testing (i.e., related samples design, independent samples design for $k = 2$ and for $k > 2$, and factorial design). We will also cover multiple comparisons (planned and post-hoc), options for analyzing data when assumptions are violated, and analysis of frequency data.

Course Format:
Course material will be presented in 3 sections through text readings, lectures, hand outs, graded in-class group activities, and graded homework assignments. You are expected to review material prior to lecture and in-class exercises. Answer keys for exercises & homework will be posted on CourseSpaces.

Prerequisites:
The prerequisites for this include PSYC300A (minimum 50%), and completion of core requirement for Psychology Majors & Honours (or declaration of Major or Honours in Linguistics B.Sc. program).

Registration:
Please note that it is your responsibility to ensure you are registered in the course. Having access to the CourseSpaces page does not necessarily mean you are registered. Registered students who do not attend at least one class during the first two scheduled class sessions may be dropped from the class. Students will not be added to the course after January 22nd, 2020.

Optional Text:

Optional Online Tutorial:
Introduction to R. Available at datacamp.com. Simply create an account (its free) and work through the tutorial to make yourself familiar with using R and R Studio. I also recommend reading through the first 4 chapters of https://bookdown.org/ripberjt/labbook/introduction-to-r-studio-and-r-markdown.html. This tutorial is optional, but I recommend trying it to make yourself more comfortable working with R.
Course Policies:

- This course outline contains general information about the course objectives, evaluation, and schedule. It is the student’s responsibility to regularly check the course website for any updates.
- Attending and actively participating in class is strongly encouraged. The readings and course material posted on CourseSpaces can only compliment the lectures.
- To maintain an optimal learning environment, use of cell phones is not permitted during class times. The use of laptops is allowed, but discouraged as research has shown it can inhibit learning and distract other students. If you choose to bring a laptop to class I will kindly ask you to sit towards the back or sides of the classroom.
- 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, skin color, sexuality, disability, age, socio-economic status, ethnicity, language, 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.

Evaluation:

Your understanding of course material will be assessed through the following:

- Performance on 3 exams (two worth 15%, and a cumulative final worth 30%, for 60% total)
  - There will be exams on (1) February 3rd, (2) March 9th, and (3) during the final exam period between April 6th – 24th
- Research Report (worth 15%)
- Online CourseSpaces quizzes (worth 10%)
- Graded in-class assignments (worth 5%)
- Homework (worth 5%)
- In-class participation via iClicker (worth 5%)

Notes. All deadlines and grades submitted for exams and class exercises are final. There are no make-up assignments, no make-up exams, and no bonus or extra assignments that you can do post hoc to alter your grades. Your final grade for this class will be given as a rounded percentage (e.g., 74.50% will be rounded to 75%, and 74.40% will be rounded to 74%).

If You Miss a Class:

Get notes from a classmate. Lecture slides will contain most, but not all of the information we discuss in class.

Forming Study Groups:

Studying together in groups can be helpful for some people, and is encouraged. It is perfectly acceptable to come to office hours in groups.

Research Report:

For the research report project, you will be asked to design your own study (following a set of guidelines). Based on your original study design, you will be provided with a data set which you are expected to analyze (using R Statistical Software), interpret, and write your report. An original research report is required for successful completion of this course. If you do not submit a research report you will receive an “N” for this course.
Exams:
There are three exams. Two exams will be written in-class (each 60 minutes in length, each worth 15%), and a final cumulative exam will be written during the final exam period (between April 6th – 24th, worth 30%). 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.

Each exam will cover material from the text, class lectures, class exercises, and homework assignments.

Missing an Exam:
No make-up exams will be given. If you miss an exam due to illness, accident, or family affliction, you must email me as soon as possible indicating that you have missed the exam and the reason for doing so. Then, you must supply me with written support for your absence within 10 days of missing the exam (e.g., doctor’s note).

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 exam, 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 exam. Notes indicating that you were examined that day without indication of illness will not be accepted.

If your documentation is accepted for the missing exam, then a grade for that exam will be generated by weighting your grades from the remaining exams. Students who miss more than one exam 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. Unlike the other two exams, the grade for the final exam will not be extrapolated and the exam must be written.

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

Quizzes:
There will be 12 quizzes on CourseSpaces to regularly evaluate your understanding of the material, worth a total of 10% of your final grade. For each quiz, you will be allowed up to five attempts, and the average grade of these attempts will be used as your final grade for this quiz. Each quiz will be weighted equally, and your lowest quiz grade will be dropped.

In-Class Exercises:
To further facilitate your integration of the course material, you will be asked to 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 the course instructor. 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.
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 comprehension of the material as well as to introduce you to R Statistical Software. It is incredibly helpful to practice and work through the problems. 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 grade for your lowest homework assignment will be dropped.

iClicker Responses:
During lectures, iClickers will be used to assess students’ understanding of concepts. To avoid random or careless responding, you will be graded on your correct responses. Each correct iClicker response will be worth 0.1%, up to a maximum of 5%. There will be approximately 60-70 iClicker questions distributed throughout the term, so I encourage you to bring your iClicker to every class. Please visit https://www.uvic.ca/til/services/iclicker/support-students/index.php for information on how to register your iClicker for this class.

Tentative Schedule: (see CourseSpaces for any updates or changes)

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Date</th>
<th>Exam</th>
<th>Topic</th>
<th>Class Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monday</td>
<td>Jan. 6</td>
<td></td>
<td>Course Introduction; Ind. &amp; Dep. Variables IVs &amp; DVs; Related Samples</td>
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<tr>
<td>1</td>
<td>Thursday</td>
<td>Jan. 9</td>
<td></td>
<td>Design</td>
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<td>2</td>
<td>Monday</td>
<td>Jan. 13</td>
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<td>Related Samples Design; Class Exercise #1 Correlation Design</td>
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<tr>
<td>2</td>
<td>Thursday</td>
<td>Jan. 16</td>
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<tr>
<td>3</td>
<td>Monday</td>
<td>Jan. 20</td>
<td></td>
<td>Independent Samples Design</td>
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<tr>
<td>3</td>
<td>Thursday</td>
<td>Jan. 23</td>
<td></td>
<td>Independent Samples Design</td>
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<tr>
<td>4</td>
<td>Monday</td>
<td>Jan. 27</td>
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<td>Independent Samples Design</td>
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<td>4</td>
<td>Thursday</td>
<td>Jan. 30</td>
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<td>Variability Explained; Class Exercise #2</td>
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<td>Monday</td>
<td>Feb. 3</td>
<td>1</td>
<td>Exam #1</td>
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<td>Thursday</td>
<td>Feb. 6</td>
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<td>Power</td>
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<td>6</td>
<td>Monday</td>
<td>Feb. 10</td>
<td></td>
<td>Power</td>
<td></td>
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<tr>
<td>6</td>
<td>Thursday</td>
<td>Feb. 13</td>
<td></td>
<td>Power; Class Exercise #3</td>
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<td>7</td>
<td>Monday</td>
<td>Feb. 17</td>
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<td>Reading Break – No Class</td>
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<tr>
<td>7</td>
<td>Thursday</td>
<td>Feb. 20</td>
<td></td>
<td>Reading Break – No Class</td>
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<tr>
<td>8</td>
<td>Monday</td>
<td>Feb. 24</td>
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<td>Multigroup Design (ANOVA)</td>
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<tr>
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<td>Thursday</td>
<td>Feb. 27</td>
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<td>Multigroup Design (ANOVA)</td>
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<td>9</td>
<td>Monday</td>
<td>Mar. 2</td>
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<td>Multiple Comparisons</td>
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<td>9</td>
<td>Thursday</td>
<td>Mar. 5</td>
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<td>Multiple Comparisons; Class Exercise #4</td>
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<td>Monday</td>
<td>Mar. 9</td>
<td>2</td>
<td>Exam #2</td>
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<td>Thursday</td>
<td>Mar. 12</td>
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<td>Factorial Designs</td>
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<td>11</td>
<td>Monday</td>
<td>Mar. 16</td>
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<td>Factorial Designs</td>
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<tr>
<td>11</td>
<td>Thursday</td>
<td>Mar. 19</td>
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<td>Interactions in Factorial Designs</td>
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<tr>
<td>12</td>
<td>Monday</td>
<td>Mar. 23</td>
<td></td>
<td>Interactions in Factorial Designs; Class Exercise #5</td>
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<tr>
<td>12</td>
<td>Thursday</td>
<td>Mar. 26</td>
<td></td>
<td>Options when Assumptions are Violated</td>
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<tr>
<td>13</td>
<td>Monday</td>
<td>Mar. 30</td>
<td></td>
<td>Analysis of Frequency Data</td>
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<tr>
<td>13</td>
<td>Thursday</td>
<td>Apr. 2</td>
<td></td>
<td>Analysis of Frequency Data; Class Exercise #6</td>
<td>6</td>
</tr>
<tr>
<td>April 6th – 24th</td>
<td></td>
<td></td>
<td>3</td>
<td>Final Exam during April Exam Period</td>
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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 309-312 of the UVic Calendar September 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, September 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/calendar2019-09/pdfs/undergraduate-201909_Part4.pdf, (p.45-47, UVic Calendar September 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 September 2019).

The definitive source for information on Academic Integrity is the University Calendar (p. 45-47 in September 2019) (https://web.uvic.ca/calendar2019-09/pdfs/undergraduate-201909_Part4.pdf)

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/
   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.
3. UVic Library Resources: http://www.uvic.ca/library/research/citation/plagiarism/
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