PSYC*3290, Course Outline: Winter 2021

Version 1.0

General Information

DUE to the ongoing COVID-19 pandemic, this course is offered in an alternative format.
Lectures: Alternative Delivery Asynchronous – AD-A Remote: no day and time for class
Labs: Synchronous delivery via Zoom – check your lab time on WebAdvisor. Lab attendance is essential for content mastery and skill development.
BUT - please take note of the specific day/time for the midterm (Feb 8, 9:00am)

Course Title: Conducting Statistical Analysis in Psychology

Course Description:
This course focuses on training students in the quantitative analysis and communications skills needed to become a researcher in psychology. Traditional psychological analysis techniques (e.g., t-test, analysis of variance, and bivariate/multiple regression) are taught. The value of interpreting results using effect sizes with confidence intervals is discussed and the logic of null-hypothesis testing is reviewed.

Credit Weight: 0.50
Academic Department (or campus): Psychology
Semester Offering: W21
Class Schedule and Location:
Alternative Delivery Asynchronous – AD-A Remote: no day and time for class

Instructor Information

Instructor Name: David J. Stanley, PhD
Instructor Email: psyc3290@gmail.com
Office location and office hours: Zoom see Courselink for details

GTA Information

Lab	Location	TA	TA Zoom Office Hour	Email
LAB #1: M: 12:30-2:20	ZOOM	Katherine	TBA	kgibbard@uoguelph.ca
LAB #2: M: 2:30-4:20	ZOOM	Michael	TBA	wolterm@uoguelph.ca
LAB #3: T: 11:30-1:20	ZOOM	Mallory	Monday 11:00am	terry@uoguelph.ca
LAB #4: W: 12:30-2:20	ZOOM	Diogo	Wednesday 11:00am	dborba@uoguelph.ca.
LAB #5: TR: 11:30-1:20	ZOOM	Jordan	TBA	jmoore27@uoguelph.ca
LAB #6: F: 8:30-10:20	ZOOM	Jordan	TBA	jmoore27@uoguelph.ca
LAB #7: F: 2:30-4:20	ZOOM	Sebastian	TBA	ssciarra@uoguelph.ca

TA emails are provided only for administrative emails relating to extensions and similar administrative issues. As per their contracts, TAs will only answer content and grading related

questions during the labs and office hours. You may only attend the lab you are scheduled for in WebAdvisor. Zoom link posted on [Courselink](#).

Course Content

Specific Learning Outcomes:

2 Literacy, Facet 2. Methodological Literacy: The ability to understand, evaluate, and design appropriate methodologies for rigorous psychological science

2 Literacy, Facet 3. Quantitative Literacy: Includes numeracy, and competence in working with numerical data

2 Literacy, Facet 4 Technological Literacy: The ability to select and use appropriate technology

2 Literacy, Facet 5 Visual Literacy: The ability to effectively find, interpret, evaluate, use, and create images and visual media and content.

4 Communicating, Facet 2 Written Communication: The ability to express one's ideas and summarize theory and research through a variety of writing styles (e.g., American Psychological Association [APA] style, term papers, posters

Lecture Content:

Lectures are **asynchronous**. Lecture content will be presented as a combination of notes on the class website (bit.ly/psyc3290) and videos/slides on Courselink. Please attend office hours to get help with lecture material.

Labs:

Labs are **synchronous** – only attend the lab in your WebAdvisor schedule. Labs take place via Zoom.

Overview

Week	Lecture	Reading	Lab	DUE
1 Jan 11	Introduction	Class website: Populations Class website: Sample Accuracy	Intro to R Class website: Chapter 1	
2 Jan 18	d-values	Class website: Sample Precision Chapter 4 Normal Distribution	Tidyverse Class website: Chapter 2	
3 Jan 25	p-values and confidence intervals	Article: p-values: Chapter 5 Confidence Intervals	Graphing Class website: Chapter 3	
4 Feb 1		Lab Midterm This Week		

Week	Lecture	Reading	Lab	DUE
5 Feb 8	t-test between	Chapter 7: Independent Groups Design	t-test MINOR 1	
6 Feb 22	One-way ANOVA	Chapter 14: Extended Designs One Independent Variable	One-way MAJOR	t-test In/before lab the week of Feb 22
7 Mar 1	CRF ANOVA	Chapter 15: Extended Designs Two Independent Variables	CRF MINOR 2	One-way In/before lab the week of Mar 1
8 Mar 8	Split-plot ANOVA	Chapter 15: Extended Designs Two Independent Variables	Split-plot MAJOR	CRF In/before lab the week of Mar 8
9 Mar 15	Correlation/regression	Chapter 11: Correlation	Correlation Regression MINOR 3	Split-plot In/before lab the week of Mar 15
10 Mar 22	Multiple Regression	Chapter 12: Regression	Multiple Regression MAJOR	Correlation In/before lab the week of Mar 22
11 Mar 29	Proportions	Chapter 13: Proportions	Proportions MINOR 4	Regression In/before lab the week of Mar 29
12 April 5		Q&A for final exam		Proportion In/before lab the week of April 5

Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Course Outline Quiz	**January 22**	**2.5**	
Midterm: Lab	**In lab week of Feb 1**	**5**	**2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)**
Midterm: Lecture	**Monday Feb 8. Begin between 9am and 10am.**	**10**	**2 Literacy (Facets, 2,3, 4, 5)**
Minor: t-test	**In lab, week of Feb 22**	**2.5**	**2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)**
Minor: CRF	**In lab, week of Mar 8**	**2.5**	**2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)**
Minor: Correlation	**In lab, week of Mar 22**	**2.5**	**2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)**
Minor: Proportions	**In lab, week of Apr 5**	**2.5**	**2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)**
Major: One-way	**In lab, week of Mar 1**	**15**	**2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)**

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Major: Split-plot	**In lab, week of Mar 15**	**15**	**2 Literacy (Facets, 2,3, 4, 5)** **4 Communicating (Facet 2)**
Major: Regression	**In lab, week of Mar 29**	**15**	**2 Literacy (Facets, 2,3, 4, 5)** **4 Communicating (Facet 2)**

In this course we use a universal accommodation approach – that does not require medical documentation or instructor consent. If you are unable to write the midterm lab/lecture to acute medical, academic, or personal reasons, its contribution to their final grade will be automatically shifted to the final exam.

Due to the nature of the lab midterm, if you cannot write the lab midterm at the scheduled time the marks will be automatically moved to the final exam (it cannot be rescheduled). If you are unable to write the lecture midterm at the scheduled time – but wish to do so, contact the instructor in writing ASAP and at least 7-days prior to the midterm. If you inform the **instructor** later than this the lecture midterm marks will be moved to the final exam. Midterms and final exam will take place online.

If you have extenuating circumstances (medical/personal) such that you require an extension on a major assignment – contact your TA via email.

Final examination (online) date and time: See WebAdvisor
Final exam weighting: 30
Examination Regulations

Course Resources

Required Texts:

Cumming, G., & Calin-Jageman, R. (2016). Introduction to the new statistics: Estimation, open science, and beyond. Routledge. [3 digital copies available on library website].

American Psychological Association. (2019). *American Psychology Association Publication Manual 7th Edition*. Washington, DC: American Psychological Association.
APA 7 paper-book link   APA 7 e-book link

Other Resources:

Courselink: Course materials available on CourseLink.

Course website: Course materials at bit.ly/psyc3290.

Software: We will use the free software below for our analyses: [RStudio Cloud](#). Be sure to sign up with your university email. You will receive a invitation or link to the classwork space. This access will last for the duration of the course.

DO NOT share this the RStudio invitation/workspace link outside of the class. The service is very expensive, and we have a limited number or RStudio Cloud slots (paid for in advance). If you share the link with someone outside of the class, you will be giving the RStudio slot for one of your classmates to someone else.

This service allows the instructor/TA to look in on your project and check to see why your code may not be running during the lab/office hours. Note that when a TA/instructor access your code – you are "kicked out" of your own project. Two people can't look at a project at the same time.

Course Policies

Grading Policies

All assignments are due at the beginning of your lab in order to be considered "on time". Major assignments have a late penalty of 20% per day. If you have extenuating circumstances (medical/personal) such that you require an extension on a major assignment – **contact your TA via email.**

Minor assignments that are late are not accepted and receive a grade of zero. You obtain the grade for the best 3 of 4 minor assignments as a form of universal accommodation. This is not designed to maximize your grade but rather take into account medical or personal complications for students.

In this course we use a universal accommodation approach – that does not require medical documentation or instructor consent. If you are unable to write the midterm lab/lecture to acute medical, academic, or personal reasons, its contribution to their final grade will be automatically shifted to the final exam.

Due to the nature of the lab midterm, if you cannot write the lab midterm at the scheduled time the marks will be automatically moved to the final exam (it cannot be rescheduled). If you are unable to write the lecture midterm at the scheduled time – but wish to do so, contact the instructor in writing ASAP and at least 7-days prior to the midterm. If you inform the instructor later than this the lecture midterm marks will be moved to the final exam.

[Undergraduate Grading Procedures](#)

Course Policy on Group Work:

You may work with other students to understand the material, but minor and major lab assignments should be written individually without the assistance of others.

University Policies

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Disclaimer: Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website and circulated by email.

Illness
The University will not normally require verification of illness (doctor's notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration:
Academic Consideration, Appeals and Petitions

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:
Academic Misconduct Policy

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This

relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 54335 or email accessibility@uoguelph.ca or the Student Accessibility Services Website

Course Evaluation Information

Please refer to the Course and Instructor Evaluation Website .

Drop date
The last date to drop one-semester courses, without academic penalty, is April 12, 2021 . For regulations and procedures for Dropping Courses, see the Schedule of Dates in the Academic Calendar.

Instructors must provide meaningful and constructive feedback, at minimum 20% of the final course grade, prior to the 40th class day. For courses which are of shorter duration, 20% of the final grade must be provided two-thirds of the way through the course.