

PSYC*3290, Course Outline: Winter 2026

General Information

Some courses are offered virtually and some face to face. This course is offered using a combination of the Alternate-Delivery-Synchronous (AD-S) format and Face-to-Face format. Lectures are delivered virtually at assigned days and times, and seminars take place face to face at an assigned location on campus at the set day and time.

Course Title: Conducting Statistical Analyses 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: W26

Class Schedule and Location:

Monday 11:30am (Zoom)

Friday 11:30am (Zoom)

Note: These unusual times were assigned NOT requested.

Labs (in person)

Instructor Information

Instructor Name: David J. Stanley, PhD

Instructor Email: dstanley@uoguelph.ca

Office location and office hours: TBA

GTA Information

Anna Kazatchkova

Email: akazatch@uoguelph.ca (extenuating circumstances only)

Cole Poore-Buchhaupt

Email: cpoorebu@uoguelph.ca (extenuating circumstances only)

Nicholas Maharaj

Email: maharajn@uoguelph.ca (extenuating circumstances only)

Lab	TA	Office Hour
101 Wed 11:30 to 1:30	Cole Poore-Buchhaupt	Tuesday 1pm to 2pm
102 Mon 9:30 to 11:30	Nicholas Maharaj	Friday 4pm to 5pm
103 Wed 9:30 to 11:30	Anna Kazatchkova	Tuesday 1pm to 2pm
104 Tues 2:30 to 4:30	Anna Kazatchkova	Monday 4pm to 5pm
106 Mon 2:30 to 4:30	Cole Poore-Buchhaupt	Fridays 1pm to 2pm
107 Wed 3:30 to 5:30	Nicholas Maharaj	Tuesday 1pm to 2pm

IMPORTANT: Due to financial restrictions, **TA contracts do not include any time allocations for email**. Please attend TA office hours for help with assignments and course material. TA email may be used to request medical or compassionate accommodation.

Course Content

Specific Learning Outcomes:

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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 **synchronous**. Lecture content will be presented live on Zoom – see Courselink for Zoom link. Lecture topics in table below. Lectures/labs are not recorded – if you miss class obtain notes from a colleague as you would for any in-person class.

Labs:

Labs occur in person in the room indicated by WebAdvisor.

Week	Lecture	Reading	Lab	DUE
1 starts Jan 5	Introduction	Class website: Populations Class website: Sample Accuracy	Intro to R Class website: Chapter 1	
2 starts Jan 12	d-values	Class website: Sample Precision Chapter 4 Normal Distribution	Tidyverse Class website: Chapter 2	
3 starts Jan 19	p-values and confidence intervals	Article: p-values: Chapter 5 Confidence Intervals	Graphing Class website: Chapter 3	
4 starts Jan 26	t-test between Ch 7	Chapter 7: Independent Groups Design	Lab Midterm	
5 starts Feb 2	One-way ANOVA Ch 14	Chapter 14: Extended Designs One Independent Variable	t-test MINOR 1	
6 starts Feb 9	CRF ANOVA Ch 15	Chapter 15: Extended Designs Two Independent Variables	One-way MAJOR 1	t-test Before lab starts
7 starts Feb 16	READING WEEK			
8 starts Feb 23	Split-plot ANOVA Ch 15 (again)	Chapter 15: Extended Designs Two Independent Variables	CRF MINOR 2	One-way Before lab starts
9 starts Mar 2	Correlation/regression Ch 11	Chapter 11: Correlation	Split-plot MAJOR 2	CRF Before lab starts
10 starts Mar 9	Multiple Regression Ch 12	Chapter 12: Regression	Correlation Regression MINOR 3	Split-plot Before lab starts
11 starts Mar 16	Proportions Ch 13	Chapter 13: Proportions	Multiple Regression MAJOR 3	Correlation/Reg Before lab starts
12 starts Mar 23	Advanced R for statistics (optional)	None.	Proportions MINOR 4	M. Regression Before lab starts
13 Mar 30		Q&A for final exam		Proportion Before lab starts

Course Assignments and Tests:

Assignment or Test	Due Date	Contribution to Final Mark (%)	Learning Outcomes Assessed
Midterm: Lab	In lab during the 4 th week (week of January 26)	10	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
Minor: t-test	Before lab, week of Feb 9	3.33	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
Minor: CRF	Before lab, week of Mar 2	3.33	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
Minor: Correlation	Before lab, week of Mar 16	3.33	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
Minor: Proportions	Before lab, week of Mar 30	3.33	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
		(minor: best 3 of 4)	
Major: One-way	Before lab, week of Feb 23	15	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
Major: Split-plot	Before lab, week of Mar 9	15	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)
Major: Regression	Before lab, week of Mar 23	10	2 Literacy (Facets, 2,3, 4, 5) 4 Communicating (Facet 2)

Additional Notes (if required):

The lab exam is written in person during the lab. 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 lab midterm to acute medical, academic, or personal reasons, its contribution to their final grade will be automatically shifted to the final exam (which is also in person). Due to the nature of the lab midterm, if you cannot write the lab midterm at YOUR scheduled lab time the marks will be automatically moved to the final exam (it cannot be rescheduled).

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

The final is exam is cumulative and based on all course content.

Final examination (online) date and time: See WebAdvisor.

Exam is in person on campus.

Final exam weighting: 40%

[Examination Regulations](#)

Course Resources

Required Texts:

Cumming, G., & Calin-Jageman, R. (2024, 2nd Edition). Introduction to the new statistics: Estimation, open science, and beyond. Routledge. <https://a.co/d/av6Behu>

***Course website for lecture readings and labs
bit.ly/psyc3290***

Cost of Texts:

The cost of the required text for this course, (textbook information), is \$125.95 at the campus bookstore. Students are welcome to use second-hand copies of the textbook (2nd Edition only) or purchase the textbook from alternate locations. The prices in other locations may differ from that at the bookstore and prices at the bookstore are subject to change.

Textbook / Learning Resource	Required / Recommended	Cost*
Introduction to the New Statistics 2nd Edition	Required	\$133.50 (University bookstore cost)
RStudio Cloud (posit)	Required	\$0 (Dept paid for you)
Datacamp.com	Required	\$0 (Educational cost)

*Costs are subject to change.

Lab Manual:

***Course website (free)
bit.ly/psyc3290***

Other Resources:

Courselink: <https://courselink.uoguelph.ca>

RStudio / Posit Cloud (see link on courselink for free access)

Datacamp (see link on courselink for free access)

Course Policies

Course Concerns

Any concerns about the course or course administration should be brought up during office hours – not sent via email. Email is prone to misunderstanding and consequently not an appropriate venue for expressing course concerns. I am happy to discuss any concerns you may have about the course during office

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 consider 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).

[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. Likewise, the midterm and final exam should be written individually without the assistance of others.

Course Policy regarding use of electronic devices and recording of lectures:

Electronic recording of classes by students is expressly forbidden without consent of the instructor. When recordings are permitted, they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructor. Lectures may occasionally be recorded for the purpose of

documenting teaching practices for the Dean's office. If you do not want to appear in this teaching documentation, please inform the instructor via email.

Student Rights and Responsibilities when Learning Online

Online behaviour

According to the University Secretariat, students have a responsibility to help support community members' access to the tools they need to engage in their learning and development, both in and outside of the classroom. An example of this type of responsibility is the requirement to abide by the following:

Section 4.3.3. Disruption - to not interfere with the normal functioning of the University, nor to intimidate, interfere with, threaten or otherwise obstruct any activity organized by the University, including classes, or to hinder other members of the University community from being able to carry on their legitimate activities, including their ability to speak or associate with others.

As such, appropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include

- Posting inflammatory messages about your instructor or fellow students
- Using obscene or offensive language online
- Copying or presenting someone else's work as your own
- Adapting information from the Internet without using proper citations or references
- Buying or selling term papers or assignments
- Posting or selling course materials to course notes websites
- Having someone else complete your quiz or completing a quiz for/with another student
- Stating false claims about lost quiz answers or other assignment submissions
- Threatening or harassing a student or instructor online
- Discriminating against fellow students, instructors and/or TAs
- Using the course website to promote profit-driven products or services
- Attempting to compromise the security or functionality of the learning management system
- Sharing your username and password

University Policies

Disclaimer:

Please note that a revision of the format of course offerings, changes in classroom protocols, and academic schedules is occasionally required. Any such changes will be announced via CourseLink and/or class email. This includes on-campus scheduling during the semester, mid-terms and final examination schedules.

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](#)

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

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](#)

Student Feedback Questionnaire

These questionnaires (formerly course evaluations) will be available to students during the last 2 weeks of the semester. Students will receive an email directly from the Student Feedback Administration system which will include a direct link to the questionnaire for this course. During this time, when a student goes to login to CourseLink, a reminder will pop-up when a task is available to complete.

[Student Feedback Questionnaire](#)

Drop date

The last date to drop one-semester courses, without academic penalty, is Monday April 6th 2026. 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.

[Current Undergraduate Calendar](#)

Additional Course Information

Course instructors are allowed to use software to help in detecting plagiarism or unauthorized copying of student assignments. Plagiarism is one of the most common types of academic misconduct on our campus. Plagiarism involves students using the work, ideas and/or the exact wording of other people or sources without giving proper credit to others for the work, ideas and/or words in their papers. Students can unintentionally commit misconduct because they do not know how to reference outside sources properly or because they don't check their work carefully enough before handing it in. 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.

In this course, your instructor or TA may be using Turnitin.com to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to prevent plagiarism in the College of Social and Applied Human Sciences.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing misconduct. In this course, you may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.