



PSYO 270: Introduction to Research Methods and Design

2023W Term 1 (September–December 2023)

Wednesdays & Fridays 11:00–12:30, ART 366

Instructor: Rebecca Godard, M.A. (she/her)

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Teaching Assistants:

Office hours (times TBD):

<https://ubc.zoom.us/j/68389862819?pwd=NkUrbWxiTmlNQkRKVjQ1aDFRZ3BSQT09>

Meeting ID: 683 8986 2819

Passcode: 513612

Overview: In this course, you will learn to ask and answer questions in psychology by getting hands-on experience designing a research project with a team. Classes will rotate between giving you the background knowledge needed to understand, critically evaluate, and perform successful research in psychological science and allowing you to apply those skills to the development, analysis, and presentation of a research project.

Textbook (free and online)

Price, P. C., Jhangiani, R. S., & Chiang, I. A. (2015). Research Methods in Psychology (2nd Canadian edition). <https://opentextbc.ca/researchmethods/>.

Detailed Course Description and Objectives: This course is designed to introduce you to the philosophy of science and inquiry in psychology. We will accomplish this by combining lectures with collaborative work that has an applied focus. You will complete replication studies illustrating key research designs, learn and practice concepts from lectures and course readings, and ultimately conduct your own research project. Our course objectives include:

1. Understanding research methods and design in psychological science, including the concepts of research ethics, validity and reliability, measurement, single and multiple- variable research techniques, survey design, and data analysis and interpretation.
2. Increasing familiarity with scientific writing and reporting results in APA format.
3. Proposing a research idea (specification of a testable research idea, development of testable hypotheses).
4. Development of a research study (choosing the appropriate research design to test specific hypotheses; ethical guidelines; data management).
5. Analysis and interpretation of research results.
6. Professional conference-style presentation of research.
7. Critical evaluation of research and everyday claims made about research.



Research Project: Throughout the term, you will receive guidance in developing a testable hypothesis and research plan. Your research project must be designed with a few specifications that are essential to making the project possible within our course structure. First, you have two options for your study design: (1) two continuous variables, or (2) one categorical variable and one continuous variable. These designs and additional study specifications will be described in class. Second, your project must take no more than a few minutes for respondents (your classmates) to complete. Third, your project must conform to ethical considerations; sensitive or potentially triggering topics should be avoided—your instructor will provide guidance. We will do everything we can to help you examine a question that you are interested in knowing more about and producing research that will provide you with an initial answer to that question, as appropriate for an introductory course.

Course Requirements: You will be evaluated based on the requirements below. The dates of exams and assignments are provided in the daily schedule in this syllabus.

Applied Research Project (30%)

- A major portion of your course grade depends on the completion of a class research project. Your research project will consist of iterative assignments (totaling 15%) that build on each other and a conference-style poster and presentation (15%). These assignments usually take place in-class during the sessions indicated in the daily schedule below.
- You will make a professional academic conference poster presentation of your results (see Daily Schedule). Your team will present your poster during one of the final classes of the term. In addition to presenting, you will get the chance to learn about the projects conducted by other research teams in class. You must attend both poster sessions, even though you are only presenting at one. All team members are evaluated on their individual contribution to the final team poster. This means that although the poster represents the efforts of the entire team, you will be assessed and marked on your individual presentation of the team's findings and on your individual contribution to the team's poster.

Exams (70%)

- **Midterm Exams (40%):** There will be two closed-book midterm exams (20% each). Exams will include multiple-choice questions covering class and textbook content. Reading the textbook will be quite helpful in achieving a good grade on the tests in addition to regular class attendance. The dates and coverage of these exams are indicated on the daily schedule below—exams take place during your regular class time in the regular classroom (ART 366). Please bring a pencil to the exams.
- **Final Exam (30%):** The final exam will take place during the finals period at the time and place specified in the university final exam schedule. The final exam will have the same format as the midterms. Content from the last third of the course (see the daily schedule below) will be weighted more heavily in the final exam (approximately 50% of questions) compared to content from



the first two-thirds of the course. Please note that all decisions about rescheduling final exams (e.g., due to illness or personal emergencies) are made by the Dean and requests must be made using this form:
<https://fass.cms.ok.ubc.ca/wp-content/uploads/sites/131/2020/06/Out-of-time-examination-FASS.pdf>.

SONA or alternate assignment (up to 2% bonus): You may earn up to 2% extra credit on your final grade by participating in SONA studies or completing alternate assignments. Full details can be found below.

Grading	UBC Grading Scale*
Research project assignments: 15%	90–100 = A+
Research project poster presentation: 15%	85–89 = A
Exam 1: 20%	80–84 = A-
Exam 2: 20%	76–79 = B+
Final exam: 30%	72–75 = B
SONA or alternate assignment: 2% bonus	68–71 = B-
	64–67 = C+
	60–63 = C
	55–59 = C-
	50–54 = D
	0–49 = F

*Please note that grades will be rounded to the nearest whole number. Out of fairness to all students, requests for extra credit (other than through SONA or the alternate assignment) or to round grades otherwise will not be considered.

Late Policies: For all assignments other than the poster presentation and exams, there is a 24-hour grace period in which students may submit assignments with no penalty. Please note that assignments submitted during the grace period may not receive feedback as rapidly as assignments submitted on time. For each 24-hour period (or part thereof) beyond the grace period, 25% of the possible marks will be deducted. Rescheduling the poster presentation or exams will be considered only in exceptional individual circumstances. For further details, please see the UBC-wide policies on exams: <https://okanagan.calendar.ubc.ca/campus-wide-policies-and-regulations/academic-assessment/examinations/senate-policy-examinations>. Late submissions will not be accepted for extra credit work.

Policy on the use of Generative Artificial Intelligence Tools: If you use ChatGPT (or a similar tool) to get ideas and/or partial answers for an assignment and/or to generate any text for a draft or final version of any part of an assignment, you must declare that you have used it. You must also include any generated text from this tool in your submission (i.e., a screenshot or copy-and-paste of ALL output generated when working on the assignment). If you use this tool, your (or your group's) *original* contributions will be evaluated. Failure to fully declare the use of this tool will be considered "unauthorized".



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Lecture Audio Recordings: Audio recordings of lectures will be made available on Canvas. These recordings are intended for your personal use. They may not be shared with anyone who is not enrolled in the course or retained beyond the end of the course. Failure to comply with these policies may be considered unauthorized use of resources.

Acknowledgements: Lab activities were adapted from *PSYO 270: Introduction to Research Methods and Design* by Anne Tseu and Derrick Wirtz (<https://pressbooks.bccampus.ca/psyo270/>).



SONA RESEARCH ACTIVITY

Students earn Sona credit points for their eligible courses from participating in research activity. This can be either through direct participation in research through the Sona online research system (Option 1), by completing summaries of primary research articles (Option 2), or by a combination of the two types of activities. First year courses (i.e., PSYO 111 and PSYO 121) include 4% as part of the final course grade for participating in Sona research activity, while second year and higher courses allow for a 2% bonus to be added to the final course grade for participating.

Research Participation In Online Research System (Option 1)

As a participant in one of the numerous research studies posted at <http://ubco.sona-systems.com/>, you will obtain 0.5% credit for each 0.5 hour of participation. Hence, studies requiring a 1-hour time commitment provides a credit of 1%, 1.5 hours provides a credit of 1.5%, and 2 hours provides a credit of 2.0%, etc.

Important Requirements

You may participate in more than one study in order to earn credits. It is important to sign up for studies early in the semester in order to increase the odds that a timeslot is available. If you wait until later in the semester, timeslots may no longer be available.

Logging On To The System

Sona is only open for those students who are registered in a psychology course offering Sona credit points. Please only use the request account option if you have never used the Sona system before. If you have used the Sona system before, please use the most recent login information you remember to log in.

Missed Appointments & Penalties

Missed appointments (i.e., failure to cancel the appointment at least 3 hours prior to the session) will be tracked. The consequence will be that you will not receive credit for participation in the study and you will be assigned an unexcused no-show. The unexcused no-show designation will cause you to lose the credit value of the study from the total possible credit points you can earn for your course. For example, if you are in PSYO 111 (or 121), you can earn up to 4.0 credits. If you miss an hour-long session that you signed up for (i.e., 1.0 credit) and don't cancel it in advance, the maximum credits that you can now earn for your course is 3.0, regardless of how many studies you complete.

If, after consenting to participate and starting a session (or survey), you decide to withdraw your consent, to avoid receiving an unexcused no-show on Sona, you must do one of the following:

- if it is an online study, you must cancel your Sona sign-up and/or contact Shirley (psyc.ubco.research@ubc.ca) if you are unable to cancel your sign-up;



- if it is an in-person study, you must let the researcher know directly. Their email can be found on the main description page for the study (little envelope icon). Depending upon the study, they will either cancel your session or assign you an excused no-show (meaning that you will not be penalized).

Your ability to withdraw your data will depend upon the study. Instructions for withdrawing your data (including limitations) will be described in the study's consent form.

Please email psyc.ubco.research@ubc.ca with any questions or concerns that you may have regarding the Sona system. Your professor or instructor does NOT have access to this information.

Research Summary Assignment (Option 2)

As an alternative to participating in research studies, you may obtain Sona credit points by completing library-writing projects to a satisfactory level. Each library-writing project is worth a total of two credits.

Important Requirements

1. This project consists of reading and summarizing (in written form) a recent, peer-reviewed, primary research article.
 - A “recent” article has been published within the past 12 months.
 - A “peer reviewed” article is one that has been reviewed by other scholars before it is accepted – for example, it **cannot** be a news item, an article from a popular magazine, a notice, or a letter to the editor.
 - A “primary” research article describes an experiment or study where data are collected by the authors. In other words, the article you choose to review **cannot** be a book review, literature review, or summary article.
2. You must choose an article published by one of the following agencies:
 - The American Psychological Society - *Psychological Science*, *Current Directions in Psychological Science*, *Psychological Science in the Public Interest*, or *Perspectives on Psychological Science*.
 - The American Psychological Association - www.apa.org/journals/by_title.html has a full listing.
 - The Canadian Psychological Association - *Canadian Psychology*, *Canadian Journal of Behavioural Science*, or *Canadian Journal of Experimental Psychology*.
 - The Psychonomic Society - *Behavior Research Methods, Cognitive, Affective, & Behavioral Neuroscience*, *Learning & Behavior*, *Memory & Cognition*, *Perception & Psychophysics*, or *Psychonomic Bulletin & Review*.

3. Other Assignment Guidelines

The summary should be about 300-500 words in length. The source must be cited and referenced in accordance with the *Publication Manual of the American*



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Psychological Association. The review will be graded on a pass – fail basis (2% or 0%). At least **14 days before the end of classes (Thursday, November 23)** each term, submit the following to the course instructor:

- the article summary
- a copy of the article
- a cover page that specifies your name, student number, email address, and word count of the summary.
- the course title and number

Submitting the assignment 14 days in advance is necessary to ensure that you have an opportunity to make corrections, if required. If you do not check your email frequently, provide a phone number on the cover page.



Daily Schedule

We recommend that you complete the readings **before** the corresponding lecture. Assignments are due before the following class unless otherwise stated. Lectures are highlighted in blue, teamwork days are highlighted in green, and exams/assessments are highlighted in yellow.

Date	Topic	Reading	Assignment
W Sep 6	Why do research?	Chapter 1	
F Sep 8	Getting started in research	Chapter 2	
W Sep 13	Developing a research idea		Lab 1
F Sep 15	Research ethics	Chapter 3	
W Sep 20	CLASS CANCELLED (work on tri-council ethics)		Tri-council ethics due Sep 27
F Sep 22	Psychological measurement	Chapter 5	
W Sep 27	Developing a testable question		Lab 2
F Sep 29	Exam 1 (chapters 1–3, 5)		
W Oct 4	Experimental research	Chapter 6	
F Oct 6	Survey research	Chapter 9	
W Oct 11	Draft project materials		Lab 3
F Oct 13	Descriptive statistics pt. 1	Chapter 12	
W Oct 18	Descriptive statistics pt. 2		Stats practice
F Oct 20	Final project materials	Qualtrics video	Lab 4
W Oct 25	Inferential statistics pt. 1	Chapter 13	
F Oct 27	Inferential statistics pt. 2		Data collection
W Nov 1	Data analysis		Lab 5
F Nov 3	Exam 2 (chapters 6, 9, 12, 13)		
W Nov 8	Theory in psychology	Chapter 4	
F Nov 10	Presenting your research	Chapter 11	
W Nov 15	NO CLASS (MIDTERM BREAK)		
F Nov 17			
W Nov 22	Creating a poster		Lab 6
F Nov 24	Non-experimental research	Chapter 7	
W Nov 29	Complex research designs	Chapter 8	
F Dec 1	Research showcase 1		
W Dec 6	Research showcase 2		
Finals (TBD)	Final exam (chapters 1–9, 11–13 with heavier focus on chapters 4, 7, 8, and 11)		



University Policies and Resources

Grading Practices: Faculties, departments, and schools reserve the right to scale grades in order to maintain equity among sections and conformity to University, faculty, department, or school norms. Students should therefore note that an unofficial grade given by an instructor might be changed by the faculty, department, or school. Grades are not official until they appear on a student's academic record. <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,41,90,1014>
It is the policy in this course that final grades cannot be adjusted (through extra assignments or otherwise) in order to achieve a passing mark, higher letter grade etc. In order to maintain fairness within this course, requests for additional assignments or to round up grades will not be considered.

Academic Integrity: The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. **For example, incidences of plagiarism or cheating usually result in a failing grade or mark of zero on the assignment or in the course.** Careful records are kept to monitor and prevent recidivism. A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at: <http://www.calendar.ubc.ca/okanagan/index.cfm?tree=3,54,111,0>

Copyright Disclaimer: Diagrams and figures included in lecture presentations adhere to Copyright Guidelines for UBC Faculty, Staff and Students (<http://copyright.ubc.ca/requirements/copyright-guidelines/>) and UBC Fair Dealing Requirements for Faculty and Staff (<http://copyright.ubc.ca/requirements/fair-dealing/>). Some of these figures and images are subject to copyright and will not be posted to *Canvas*. All material uploaded to *Canvas* are used with permission of the publisher; are in the public domain; are licensed by Creative Commons; meet the permitted terms of use of UBC's library license agreements for electronic items; and/or adhere to the UBC Fair Dealing Requirements for Faculty and Staff. Access to the *Canvas* course site is limited to students currently registered in this course. Under no circumstance are students permitted to provide any other person with means to access this material. Anyone violating these restrictions may be subject to legal action. Permission to electronically record any course materials must be granted by the instructor. Distribution of this material to a third party is forbidden.

UBC Okanagan Disability Resource Centre: The Disability Resource Centre ensures educational equity for students with disabilities and chronic medical conditions. If



you are disabled, have an injury or illness and require academic accommodations to meet the course objectives, please contact Earllene Roberts, the Diversity Advisor for the Disability Resource Centre located in the University Centre building (UNC 214).

UNC 214 250.807.9263

Email: earllene.roberts@ubc.ca

Web: www.students.ok.ubc.ca/drc

UBC Okanagan Equity and Inclusion Office: UBC Okanagan is a place where every student, staff and faculty member should be able to study and work in an environment that is free from discrimination and harassment. UBC prohibits discrimination and harassment on the basis of the following grounds: age, ancestry, colour, family status, marital status, physical or mental disability, place of origin, political belief, race, religion, sex, sexual orientation or unrelated criminal conviction. If you require assistance related to an issue of equity, discrimination or harassment, or to get involved in human rights work on campus, please contact the Equity and Inclusion Office.

UNC 216 250.807.9291

Email: equity.ubco@ubc.ca Web: www.equity.ok.ubc.ca

Health & Wellness: At UBC Okanagan health services to students are provided by Health and Wellness. Nurses, physicians and counsellors provide health care and counselling related to physical health, emotional/mental health and sexual/reproductive health concerns. As well, health promotion, education and research activities are provided to the campus community. If you require assistance with your health, please contact Health and Wellness for more information or to book an appointment.

UNC 337 250.807.9270

email: healthwellness.okanagan@ubc.ca

Web: www.students.ok.ubc.ca/health-wellness

Student Learning Hub: The Student Learning Hub (LIB 237) is your go-to resource for free math, science, writing, and language learning support. The Hub welcomes undergraduate students from all disciplines and year levels to access a range of supports that include tutoring in math, sciences, languages, and writing, as well as help with study skills and learning strategies. For more information, please visit the Hub's website (<https://students.ok.ubc.ca/student-learning-hub/>) or call 250-807-9185.

Office of the Ombudsperson for Students: The Office of the Ombudsperson for Students offers independent, impartial, and confidential support to students in navigating UBC policies, processes, and resources, as well as guidance in resolving concerns related to fairness.

Email: ombuds.office@ubc.ca

Web: www.ombudsoffice.ubc.ca



THE UNIVERSITY OF BRITISH COLUMBIA

Irving K. Barber Faculty of Arts & Social Sciences
Okanagan Campus

SAFEWALK: Don't want to walk alone at night? Not too sure how to get somewhere on campus? Call 250.807.8076 For more information, see: www.security.ok.ubc.ca

Sexual Violence Prevention and Response Office (SVPRO): A safe and confidential place for UBC students, staff and faculty who have experienced sexual violence regardless of when or where it took place. Just want to talk? We are here to listen and help you explore your options. We can help you find a safe place to stay, explain your reporting options (UBC or police), accompany you to the hospital, or support you with academic accommodations. You have the right to choose what happens next. We support your decision, whatever you decide.

Visit svpro.ok.ubc.ca or call us at 250.807.9640

Independent Investigations Office (IIO): If you or someone you know has experienced sexual assault or some other form of sexual misconduct by a UBC community member and you want the Independent Investigations Office (IIO) at UBC to investigate, please contact the IIO. Investigations are conducted in a trauma informed, confidential and respectful manner in accordance with the principles of procedural fairness.

You can report your experience directly to the IIO via email:

director.of.investigations@ubc.ca or by calling 604.827.2060 or online by visiting investigationsoffice.ubc.ca