



PSYO 270: Introduction to Research Methods and Design

2023S Term 1 (May–June 2023)

Tuesdays, Wednesdays, & Fridays 14:30–17:00, LIB 317

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Office hours:

<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 (Tuesday and Wednesday lectures) and allowing you to apply those skills to the development, analysis, and presentation of a research project (Friday teamwork).

Textbook and Lab Manual

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

Tseu, A. & Wirtz, D. PSYO 270: Introduction to Research Methods and Design. <https://pressbooks.bccampus.ca/psyo270/>.

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. You have two options for your study design: (1) one independent variable, 2 levels, or (2) two independent variables, two levels each. These designs will be discussed in class, in your textbook, and you will practice each one in class. Additional study specifications (e.g., number and type of dependent variables) 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. Due to the condensed nature of a summer course, you will be provided with a variety of options for research questions and will rank your interest in them. 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 weekly schedule in this syllabus. All assignments and exams must be completed on time, unless prior approval has been obtained from your co-instructor.

Applied Research Project (40%)

- A major portion of your course grade depends on the completion of a class research project. Since a research project is a major undertaking, you will earn these marks one week at a time. Your research project will consist of iterative assignments (totaling 25%) that build on each other and a conference-style poster and presentation (15%). These assignments usually take place during our Friday class meeting each week.
- You will make a professional academic conference poster presentation of your results (see Daily Schedule). Your team will present your poster during the final class of the term. In addition to presenting, you will get the chance to learn about the projects conducted by other research teams in class. 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 (60%)

There will be two closed-book exams (30% each) covering class and textbook



content. The second exam will occur during the finals period, but it is non-cumulative (i.e., only covers content from the second half of class). Exams are typically a combination of multiple-choice and short-answer items. The dates and coverage of these exams are indicated on the syllabus – exams take place during your regular class time. Reading the textbook will be quite helpful in achieving a good grade on the tests in addition to regular class attendance.

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: 25%	90–100 = A+
Research project poster presentation: 15%	85–89 = A
Exam 1: 30%	80–84 = A-
Exam 2: 30%	76–79 = B+
SONA or alternate assignment: 2% bonus	72–75 = B
	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 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>.



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

Psychological Association. The review will be graded on a pass – fail basis (2% or 0%). At least **14 days before the end of classes** 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 on the following Monday at 11:59pm unless noted otherwise. Lectures are highlighted in blue, teamwork days are highlighted in green, and exams are highlighted in yellow.

Date	Topic	Reading	Assignment
May 16	Why do research?	Ch. 1, The Science of Psychology	—
May 17	Getting started in research Research ethics	Ch. 2, Getting Started in Research Ch. 3, Research Ethics	—
May 19	Formulating a research question	—	Lab 2 Tri-Council Ethics
May 23	Experimental research	Ch. 6., Experimental research	
May 24	Survey research	Ch. 9, Survey Research	—
May 26	Draft project materials		Lab 3
May 30	Psychological measurement	Ch 5., Psychological Measurement	—
May 31	Exam 1	Chs. 1–3, 5, 6, 9	—
June 2	Final project materials	Qualtrics basics video	Lab 5
June 6	Descriptive statistics	Ch. 12, Descriptive Statistics	Descriptive statistics practice
June 7	Inferential statistics	Ch. 13, Inferential statistics	Inferential statistics practice
June 9	Data collection and analysis	—	Data collection (in-class) Data analysis (submit on Canvas)
June 13	Nonexperimental research Complex research designs	Ch. 7, Nonexperimental research Ch. 8, Complex research designs	—
June 14	Presenting your research	Ch. 11, Presenting your research	—
June 16	Conference posters		Lab 10
June 20	Theory in psychology	Ch. 4, Theory in Psychology	—
June 21	Research showcase		Poster presentation
TBD (Finals)	Exam 2	Chs. 4, 8, 11–13	—



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>

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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



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