

# PSYC 217: Research Methods in Psychology

Section 010, M/W/F 2-2:50pm, MCML 360

Fall 2024, Term 1

## PROFESSOR:

Andrew Rivers, PhD

**Student hours:**

- See front page of Canvas for hours and location

**Contact:**

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Email Policy: Please include “PSYC217” in the subject line of your emails & note that emails might not be answered on weekends or holidays.

*Andrew is also **happy** to meet individually; email or ask in person to set up a meeting!*

## TEACHING ASSISTANTS:

Coral Liu

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## COURSE DESCRIPTION:

Research Methods in Psychology will prepare you to apply the scientific method to the study of human behavior. In this course you will learn about different methods of acquiring knowledge about human psychology—including experimental, quasi-experimental and non-experimental methods. You will also experience first-hand what it is like to be a psychological scientist as you 1) propose a research idea, 2) develop an experimental test of your research idea, 3) collect experimental data, 4) analyze experimental data, and 5) communicate your findings in a scientific report.

Most importantly, this course will allow you to further develop your skills as a critical consumer of scientific knowledge. This is not only a skill for scientists and academics; critical thinking is a highly valued skill in many professions, especially as the *Information Age* matures with the explosion of easily available and ‘big’ data.

By the end of this course, a successful student can expect to be able to:

1. Describe key scientific principles in psychology.
2. Explain, compare, and contrast various research methods used by psychologists, *including their relative strengths and limitations.*
3. Use scientific reasoning to interpret psychological phenomena.
4. Interpret, design, and conduct an experiment to investigate a psychological question.

5. Collaborate with a team to complete a coordinated research project.
6. Demonstrate basic competence in statistical literacy.
7. Apply ethical standards to evaluate psychological science.
8. Demonstrate effective writing skills for dissemination of scientific findings.
9. Exhibit effective presentation skills for dissemination of scientific findings.
10. Critically evaluate research studies and their conclusions.

## TEXTBOOK



Cozby, P. C., Mar, R. A., & Rawn, C. D. (2020). *Methods in behavioural research* (3<sup>rd</sup> Canadian Ed.). Toronto, ON: McGraw-Hill Ryerson.

ISBN 97812641680002 (for eText & Connect access)

ISBN 9781264167999 (for eText, hard copy of textbook, & Connect access)

## COURSE BASICS

**PSYC 217 PREREQUITES AND PATHWAYS BEYOND:** PSYC 217 requires completion of both PSYC 101 and PSYC 102. PSYC 217 is a program requirement to receive a B.A. in Psychology and is the pathway to enroll in PSYC 218 (*Analysis of behavioral data*).

**COURSE FORMAT:** Each week will consist of some combination of the following: 1) Lectures on new course content, 2) Discussions about research articles, 3) Lab work to develop your own research project

## LEARNING ASSESSMENT (DETAILS)

ASSESSMENT TYPE	POINTS
3x Individual Article Reviews	3%
3x Group Article Review Worksheets	3%
4x HSP Research Experience	4%
TCPS Tutorial	1%
Midterm Exam	20%
Final Exam	30%
Lab Component	
- Project Engagement (Modules & iPeer)	9%
- Research Presentations	10%
- APA-style Final Report	20%
Total	100%

### **Individual Article Reviews (3x)**

For *individual article reviews*, you will read an empirical research article and demonstrate your ability to evaluate aspects of experimental research. Each of these will be submitted to Canvas.

### **Group Article Reflections (3x)**

For each research article, we will gather in small groups to discuss the article. Each group will complete a worksheet together that will help us identify the aspects of research design we are learning about.

### **Midterm Exam**

There will be one midterm exam, which will assess understanding of material through the previous week. More details about the exam will be announced as the date of the exam approaches.

### **Cumulative Final Exam**

The final exam is cumulative. The date and time will be determined by the registrar. **THERE MAY NOT BE A MAKEUP FINAL**, so please keep your schedule for the finals period open until the date of the final is determined. More details will be announced as the finals period approaches.

### **Research Experiences (4x HSP credits)**

Learning about and evaluating psychological science requires a working knowledge of *epistemology*—how do we know what we know? What do psychological experiments ‘look’ like? One excellent way to acquire this knowledge is to actively participate in psychological research. Students will receive credit for participating in 4 credit hours of HSP psychology experiments. To sign up for research experiences, see <https://ubc-psych.sona-systems.com>

As an *alternative* to participating in studies, students can complete writing projects, in which you read and summarize a research article. See the HSP website for detailed information including due dates and submission procedures.

### **TCPS Tutorial**

All psychological scientists must complete the *Tri-Council Policy Statement (TCPS) ethics tutorial*. This tutorial is required for you to collect data for the lab component of this course. Please set aside approximately 2 hours to complete the TCPS tutorial. You will receive full credit if you submit your TCPS completed certificate before the deadline. If you miss this deadline, you still must submit your form to participate in lab 3 (which will result in forfeiture of a large part of your lab research project grade).

### **BONUS Oops! Token**

Even if we are diligent in keeping up with course material and diligent in our planning for the weeks ahead, *sometimes* \_\_\_\_\_ *happens!* Each student will receive an ***Oops! Token*** that they can use once during the term. The token may be used in the following ways:

- “Oops, I submitted my article review (individual or group) after the deadline!”
  - If you use ***Oops!***, I’ll accept your submission with no penalty at any time during the term.
- “Oops, I missed an online lab deadline!”
  - If you use **Oops!**, you’ll receive full marks for the assignment when you complete it.
- “Oops, it’s the end of the term and I don’t see any more HSP studies available!”
  - If you use ***Oops!***, you’ll receive 1 free HSP credit.

**Fine Print:** The ***Oops Token!*** is a ‘no questions asked’ benefit, you can use it whenever you’d like and for whatever *oops!* might have happened. The ***Oops Token!*** CANNOT be used for the group presentation, APA paper, poster presentation, or final exam. Additionally, the ***Oops Token!*** cannot be used for the midterm exam after you have already taken it.

To use the ***Oops Token!***, please complete the ***Oops Token!*** quiz on Canvas. You can choose any of the above options, and can change your mind by re-taking the survey at any time. I will apply your ***Oops Token!*** at the conclusion of the term.

**Late submission policy:** I generally allow for an hour grace period for class assignments. After this, I will apply a 30% deduction up until 24-hours, and a 50% deduction up until 48-hours after the official deadline. I do not accept or grade assignments submitted more than 48-hours after assignment deadlines.

## MISCELLANEOUS COURSE POLICIES:

**Lecture Recordings & Lecture Notes:** I will record and post audio from lectures covering class material. I do not take attendance for classes and there are no participation points assigned during in-person lecture. Note that there are tasks (e.g., Group article reviews, group lab work) that **must** be completed while communicating as a small group. Lecture slides in .pdf form will also be posted online.

**Meetings:** Meetings, either during listed student hours or scheduled via email, are the best way to ask questions about course material. I encourage everyone to take advantage of scheduled student hours and note that I am *\*happy\** to schedule individual meetings with you.

**Group work and iPeer:** Working in a team can be both rewarding and challenging. Students are required to complete two peer-evaluations through which they will provide anonymous feedback to their team members, to indicate what is working well and what could be improved. Peer-evaluations are graded for **thoughtful completion**. TFs will review the first peer-evaluation (following Lab 2), to identify any groups that may be facing substantial challenges and require support. Following the Poster Session, students will complete a second peer evaluation, which will be used to adjust group grades if it is clear that specific team members are more or less than deserving of the average group grade. After each iPeer deadline, your groupmates' anonymized ratings and comments of your contributions will be published for you to review. Access iPeer using your CWL login at <https://ipeer.elearning.ubc.ca/login>. If you are finding that team dynamics are becoming difficult at any point during the term, you are welcome to discuss the situation with me and/or your TF.

**Psychology Department's Policy on Grade Scaling:** In Psychology at UBC-V, we employ department-wide grading standards to promote alignment, supporting students and course instructors as they learn and teach across diverse courses and sections. For each Course Section, instructors should aim for a grade average in the following range (before any bonus HSP points are added, but including any mandatory HSP points): **B- (68-71%) in 200-level courses**. Ranges are intended to provide some flexibility to instructors and account for differences that occur between classes. Ranges increase across year levels to account for improvements in learning, and students' ability to self-select into specialized courses.

During the course, instructors may adjust grades and/or difficulty of assessments to align with the Target Range. At the end of the course, if the average falls outside the Target Range (either direction), instructors are expected to use a linear transformation to adjust final grades (i.e., add or subtract the same number of points to all students' marks, while ensuring no student fails the course due to this transformation). If a course mean falls in within one +/- letter grade band above the Target Range (e.g., in the B+ range for Intermediate courses), and the instructor believes these grades to be justified, the instructor may submit a justification request using the departmental approval final grades submission form, and the grades may stand. This Upper Range is intended to inspire further excellence and allow for the possibility that some classes select for higher performing students. Courses with means exceeding the Upper Range will be expected to provide justification as well as use a linear transformation to fall within the Upper Range.

**Note:** An excellent discussion of the rationale for grade scaling by a UBC Psychology professor is available here: <https://www2.psych.ubc.ca/~schaller/scaling.htm>

**Artificial Intelligence (e.g., ChatGPT):** The use of artificial intelligence resources such as ChatGPT are classified as academic misconduct in the UBC policy (see below) *if they are not authorized for coursework by the instructor*. Please do not use AI resources, instead set up a meeting with me to discuss your assignment if you are having trouble brainstorming – I am happy, excited, delighted to get to talk research methods with all of you!

**Psychology Department’s Policy on Academic Misconduct:** Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. The Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students’ responses. Any instance of cheating on an exam will result in a score of 0 for that exam.

In addition, the Department subscribes to *TurnItIn* – a service designed to detect and deter plagiarism. All materials (term papers, lab reports, etc.) that students submit for grading will be scanned and compared to over 4.5 billion pages of content located on the Internet or in *TurnItIn*’s own proprietary databases. Note that *TurnItIn* is hosted on servers residing in the US. To ensure student privacy, it is permissible to register for *TurnItIn* using a pseudonym. The results of these comparisons are compiled into customized “Originality Reports” containing several sensitive measures of plagiarism; instructors receive copies of these reports for every student in their class.

In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to a student’s transcript. All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult your instructor. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (<http://students.ubc.ca/calendar>) and read the University’s Policy 69 (available at [www.universitycounsel.ubc.ca/policies/policy69.html](http://www.universitycounsel.ubc.ca/policies/policy69.html)).

If you have any questions about whether something you are doing is considered academic misconduct, **please get in contact with me and we can discuss it!**

**Acknowledgements:** I want to cite those who I learned from in creating this syllabus. Portions are inspired by Dr. Benjamin Cheung, Dr. Elizabeth Dunn, Dr. Mark Lam, Dr. Lily May, Dr. Catherine Rawn, Dr. Mark Schaller, Dr. Grace Truong & likely many more that I forgot to mention. Thank you all!

**COVID Safety:** For our in-person meetings in this class, it is important that all of us feel as comfortable as possible engaging in class activities while sharing an indoor space. Non-medical or medical grade masks that cover our noses and mouths are a primary tool to make it harder for COVID-19 to find a new host. Please wear a non-medical mask during our class meetings, for your own protection, and the safety and comfort of everyone else in the class. If you have not yet had a chance to get vaccinated against COVID-19, vaccines are available to you, free (see <https://covid19.ubc.ca/>). The higher the rate of vaccination in our community overall, the lower the chance of spreading this virus.

**If you're sick, it's important that you stay home – no matter what you think you may be sick with (e.g., cold, flu, other). If you think you might have COVID symptoms and/or have tested positive for COVID and/or are required to quarantine:** You can do a self-assessment for COVID symptoms here: <https://bc.thrive.health/covid19/en>

The marking scheme for this term is intended to provide flexibility so that we can prioritize your health and still be able to succeed:

- There are no “participation points” for in-class (e.g., clicker questions)
- If you are excused from class, you are able to makeup in-class group article discussions by submitting them directly to Canvas
- If you miss the midterm exam, you are able to push the weight of the exam onto the final exam

**If you do miss class because of illness:**

- Make a connection early in the term to another student or a group of students in the class. You can help each other by sharing notes. When research groups are assigned, connect with them as a resource when you miss class.
- Consult the class resources on Canvas. I will post slides, readings, recordings for most classes.
- Use the *Piazza* discussion forum for help! I try to reply on the forum frequently, and classmates are almost always available to help
- Come to office hours (some are on *Zoom*, so you can join from anywhere).

**If you are sick on a midterm exam day,** please email the instructor as soon as you are confident you should not come to the scheduled exam. If you do show up for an exam and you are clearly ill, we will make alternate arrangements with you. It is much better for you to email ahead of time and not attend.

**If you are sick on a final exam day,** do not attend the exam. You must apply for deferred standing (an academic concession) through Arts Advising no later than 48 hours after the missed final exam/assignment. Students who are granted deferred standing write the final exam/assignment at a later date. Learn more and find the application online: <https://science.ubc.ca/students/advising/concession>

**If I (the instructor) am sick:** I will do my best to stay well, but if I am ill, develop COVID symptoms, or test positive for COVID, then I will not come to class. If that happens, here's what you can expect

- I plan to post recorded videos with the content for the missed class
- I also plan to host extra office hours if I am unable to lecture

## Reach out and ask for help if you need it

*University students often encounter setbacks from time to time that can impact academic performance. If you run into difficulties and need assistance, I encourage you to contact me by email and we can coordinate a meeting (or not if you'd prefer to stick to email). I will do my best to support your success during the term. This includes identifying concerns I may have about your academic progress or wellbeing through Early Alert. With Early Alert, faculty members can connect you with advisors who offer students support and assistance getting back on track to success. Only specialized UBC advisors are able to access any concerns I may identify, and Early Alert does not affect your academic record.*

For more information, visit [www.earlyalert.ubc.ca](http://www.earlyalert.ubc.ca)

For information about addressing mental or physical health concerns, including seeing a UBC counsellor or doctor, visit [students.ubc.ca/livewell](http://students.ubc.ca/livewell)

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## Healthy Lifestyles

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on [the UBC Senate website](#).

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## Diversity and Inclusion

**Diversity and Inclusion**: Similar to the broader UBC community, the Psychology Department—and this class—seeks to build a community where students feel included and are treated equitably. This class aims to be inclusive of gender identity, gender expression, sex, race, ethnicity, socioeconomic background, sexual orientation, political and religious affiliation, ability, health, and age (this is not an exhaustive list!). Students, instructors, visitors, and readings may sometimes raise controversial and/or sensitive issues. Respectful and productive discussion is encouraged, and students should feel safe to explore ideas without fear of being judged. Our goal is not to always agree, but rather to disagree without being threatening or alienating. However, if a statement or behaviour is likely to offend others or make others feel alienated in any way, it should not be shared with the class (but can be shared with me after class or in student hours). If at any point you feel offended, threatened, or alienated by anything that happens in our class, please feel welcome to let me or a TA know.

<b>Week</b>	<b>Dates</b>	<b>Topic</b>	<b>Notes</b>	<b>Read</b>	<b>Due Dates</b>
1	Sept 2-6	Introduction, Science & Psych.		Ch. 1	<ul style="list-style-type: none"> <li>- Begin <u>Introduction to Labs</u> module</li> <li>- Get textbook &amp; signup for Piazza</li> </ul>
2	Sept 9-13	Research: Ideas, Aims & Designs		Ch. 2, 4	<ul style="list-style-type: none"> <li>- Set aside a time this week or next week to complete the TCPS ethics certification</li> </ul>
3	Sept 16-20	Experimental Design	<p>Wednesday: Meet your Research Team!</p> <p>Monday (9/16) is last day for withdrawal</p>	Ch. 8	<ul style="list-style-type: none"> <li>- Complete <u>Intro to Labs</u> module &amp; TCPS Certification (9/22 @11:59pm)</li> <li>- Begin <u>Lab One</u> Module through "1.1 Designing your Experiment"</li> </ul>
4	Sept 23-27	Conducting Experiments	<p>Lab 1 on Friday: <i>Brainstorming</i> (Room assignments on Canvas)</p>	Ch. 9	<ul style="list-style-type: none"> <li>- Complete <u>Lab One</u> Module (9/29 @11:59pm)</li> </ul>
5	Sept 30-Oct 4 No class Monday	Complex Experiments	<p>Friday: Article Discussion 1 No class Monday</p>	Ch 11	<ul style="list-style-type: none"> <li>- Individual Article Review #1: 10/3 @11:59pm</li> <li>- Group Article Worksheet #1: 10/4 @11:59pm</li> <li>- Begin <u>Lab Two</u> Module</li> </ul>
6	Oct 7-11	Complex Experiments cont.	<p>Lab 2 on Friday: <i>Design Presentation</i></p>	N/A	<ul style="list-style-type: none"> <li>- Complete Powerpoint slides: 10/9</li> <li>- Submit proposal video to Canvas 10/10 @11:59pm</li> </ul>
7	Oct 14-18 No class Monday	Special Experiments		Ch.10	<ul style="list-style-type: none"> <li>- Complete <u>Lab Two</u> Module (10/20 @11:59pm)</li> <li>- Begin <u>Lab Three</u> Module</li> </ul>
8	Oct 21-25	Measuring Variables	<p>Lab 3 on Friday: <i>Data Collection</i></p>	Ch. 5	<ul style="list-style-type: none"> <li>- Submit consent letter: 10/21</li> <li>- Complete <u>Lab Three</u> module (10/27 @11:59pm)</li> <li>- Optional Pre-registration: 10/24 @11:59pm</li> </ul>



<b>Week</b>	<b>Dates</b>	<b>Topic</b>	<b>Notes</b>	<b>Read</b>	<b>- Due Dates</b>
9	Oct 28- Nov 1	Describing Variables	Lab 4 on Friday: <i>Data Analysis</i>	Ch. 12	- Complete <u>Lab Four</u> module (11/3 @11:59pm) - <b>Bonus Data collection day:</b> 10/28 @5-7pm at SWNG 122
10	Nov 4-8	Describing Variables (cont.)	<b>Midterm Exam Wednesday: Chapters 1, 2, 4, 5, 8-12</b>	N/A	- Individual Article Review #2: 11/7 @11:59pm - Group Article Worksheet #2: 11/8 @11:59pm - Begin <u>Lab Five</u> module through 5.2
11	Nov 11- 15 No class Monday/We nesday	N/A	Lab 5 on Friday: <i>Writing &amp; APA style</i> No class Monday or Wednesday	N/A	- Complete <u>Lab Five</u> module (11/17 @11:59pm)
12	Nov 18- 22	Observational Methods	Friday: Article Discussion 3	Ch. 6	- Individual Article Review #3: 11/21 @11:59pm - Group Article Worksheet #3: 11/22 @11:59pm
13	Nov 25- 29	Ethics & Generalizability		Ch. 3, 14	- Final Research Report: 11/24 @11:59pm (with grace period to 11/28)
14	Dec 2-6	Replication Crisis	WEDNESDAY (12/4) is POSTER DAY!	N/A	- Drop off poster at LSI 1330 between 12-2pm on Wednesday - Poster presentations on Wednesday 5-6:30pm
-	Dec 9- 21	FINAL EXAM PERIOD	DATE/LOCATION TBA		- Exam is in-person & coverage is cumulative