

# PSYC 217-901: Research Methods in Psychology

Fall 2020, Term 1

Online home: <https://canvas.ubc.ca/courses/55980>

## PROFESSOR:

Andrew Rivers, PhD

**Student hours:**

Weds 7:30-8:30am & 5-6pm  
on *Collaborate Ultra*

**Contact:**

[amrivers@psych.ubc.ca](mailto:amrivers@psych.ubc.ca)



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

*Andrew is also happy to meet individually meetings by email request!*

## TEACHING ASSISTANTS:

James Wu

**Student hrs:** Fri 10am-12  
on *Collaborate Ultra*

**Contact:**

[james.shyantau.wu@ubc.ca](mailto:james.shyantau.wu@ubc.ca)



Anna Mylvaganam

**Student hrs:** Tues 11-1pm  
on *Collaborate Ultra*

**Contact:**

[anna.mylvaganam@ubc.ca](mailto:anna.mylvaganam@ubc.ca)



## 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 9781264168002 (for eText & Connect access)

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

**NOTE: Getting the book with access to CONNECT is cheaper than without CONNECT, so we'll be using it. Please make sure your purchase comes with access to CONNECT.**

## 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) Video lectures on new course content, 2) Discussions about research articles, 3) Lab work to develop your own research project, and 4) *SmartBook* quizzes to facilitate our readings.

## LEARNING ASSESSMENT (OVERVIEW)

ASSESSMENT TYPE	POINTS	DUE DATE(S)
12x <i>SmartBook</i> quizzes	12	Weekly on Tuesdays
3x Individual Article Reviews	9	9/22, 10/6, 11/24
3x Group Article Review Worksheets	12	9/28, 10/12, 11/30
4x HSP Research Experience	12	
TCPS Tutorial	3	9/21
Midterm Exam	55	10/21
Final Exam	92	12/16
Lab Component		
- Project Engagement (Modules)	15	Ongoing
- Presentations	30	10/16, 12/3
- APA-style Final Report	60	11/30
Total	300	

## LEARNING ASSESSMENT (DETAILS)

### **SmartBook Quizzes (12x)**

Keeping up with our readings when we are *psychologically* distant from physical class can be difficult! To help motivate us, there will be an assigned *SmartBook* quiz for each of the 12 chapters that we cover. Quizzes will be due most Tuesdays by 11:59pm (PST). The quizzes are **open-book**, and you will always receive full credit for each completed quiz. In other words, there is no penalty for wrong answers 😊

**Note:** Please work on the *SmartBook* quizzes individually rather than in a group – psychological research demonstrates that we learn better this way! (see the paper by our TA, Anna Mylvaganam, on Canvas)

### **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.

### **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 empirical research article, we will gather in groups on *Collaborate Ultra* to discuss our reactions to the article. Each group will complete a worksheet together that will help us identify the aspects of research design we are learning about.

### **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).

### **Lab Research Project**

A substantial component of the course is a lab research project that you will complete along with a team of fellow researchers. Details about the research project can be found in the *Research Project Syllabus*.

### **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 forgot to complete my *SmartBook* quiz this week!”
  - If you use the **Oops! Token**, I’ll give you credit for the missing quiz.
- “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 the midterm exam!”
  - If you use **Oops!**, your score on the final exam will count for both exams.
- “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 1) anything related to the Lab Research Project, 2) the TCPS ethics certification, or 3) the final exam. Additionally, the **Oops Token!** cannot be used for the midterm exam after you have already taken it.

To use the **Oops Token!**, send an email to Prof. Andrew with “Oops” somewhere in the subject line, and let me know which option above you’d like to use your token for (no reason necessary!)

## MISCELLANEOUS COURSE POLICIES:

**Lecture Videos & Lecture Notes:** I will record and post lecture videos covering class material. This means that you do not need to be present during our scheduled class times – watch the lectures at your convenience (hopefully in a nice park while you get some sun!). Lecture slides in .pdf form will be posted online alongside the videos. Lecture slides are not meant to substitute for watching lecture videos.

**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.

**Psychology Department's Policy on Grade Scaling:** In order to reduce grade inflation and maintain equity across multiple course sections, all psychology courses are required to comply with departmental norms regarding grade distributions. According to departmental norms, the mean grade in a 200-level class is *72 for a good class, 70 for an average class, 68 for a weak class* with a standard deviation of 14 percentage points. Scaling is likely to be used in order to comply with these norms; grades may be scaled up or down as necessary by the professor, department, or school. Therefore, grades are *never* official until they appear on your academic record.

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

**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!**

## 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.

**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!

<u>Week</u>	<u>Dates</u>	<u>Topic</u>	<u>Together Activities</u>	<u>Read</u>	<u>Due Dates</u>
1	Sept 7-11	Introduction, Science & Psych.	Meet & Greet <i>(Optional activities in Gray)</i>	Ch. 1	
2	Sept 14-17	Research Ideas & Designs	Lab 0: Intro to Lab <i>(Very) Early Brainstorming</i>	Ch. 2, 4	- SmartBook Ch.1: 9/15 @11:59pm
3	Sept 21-25	Experimental Design	Research Article Discussion #1	Ch. 8	- TCPS Certification: 9/21 @11:59pm - SmartBook Ch.2: 9/22 @11:59pm - SmartBook Ch.4: 9/22 @11:59pm Add/Drop Deadline: 9/21
4	Sept 28-Oct 2	Conducting Experiments	Lab 1: Brainstorming	Ch. 9	- Individual Article Review #1: 9/28 @11:59pm - SmartBook Ch.8: 9/29 @11:59pm
5	Oct 5-8	Special Experiments	Article Discussion #2	Ch 10	- SmartBook Ch.9: 10/6 @11:59pm - Individual Article Review #2: 10/6 @11:59pm
6	Oct 12-16	Complex Experiments	Lab 2: Design Presentation	Ch. 11	- SmartBook Ch.10: 10/13 @11:59pm
7	Oct 19-23	Ethics (not on exam)	<b>Midterm Exam</b>	Ch. 3	- SmartBook Ch.11: 10/20 @11:59pm
8	Oct 26-30	Group Research Project Consultations	Lab 3: Data Collection		- SmartBook Ch.3: 10/27 @11:59pm - Optional Pre-registration: 10/27 @11:59pm
9	Nov 2-6	Measuring Variables	Lab 4: Data Analysis	Ch. 5	- SmartBook Ch.5: 11/3 @11:59pm
10	Nov 9-13	No Class (Holiday)	Relax...breathe...☺		
11	Nov 16-20	Describing Variables	Lab 5: Writing & APA	Ch. 12	- SmartBook Ch.12: 11/17 @11:59pm
12	Nov 23-27	Generalizability	Article Discussion #3	Ch. 14	- Individual Article Review #3: 11/24 @11:59pm
13	Nov 30 – Dec 4	Replication Crisis			- Final Research Report: 11/30 @11:59pm - SmartBook Ch.14: 12/1 @11:59pm - Final Poster Presentation: 12/3
-	<b><u>FINAL EXAM</u> Dec 14 at either 6-7am or 7-8pm (PDT)</b>				